



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

STRATEGIC MONITORING PLAN Field Sheet

July 2022

Meter
Passed End
of Day CCV

Yes / No

WIN Station Name:	Clarke Lake Drainage Above Proctor Rd.				Sample Date:	12/20/2022	
WIN / Field ID:	G3SW0067	ORG ID:	21FLTPA	ENR:	-	Latitude:	27.28465
County:	Sarasota	WBID:	1971A	STREAM	3F	Longitude:	-82.50854
Receiving Body of Water:	Philippi Creek Tidal				RQ-	2022-12-05-06	

Sampling Team Members	WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
Ben Paswater		x		x	
Megan Maloney	x		x		x

Sampling Equipment			
x	Sample Container	Carboy	
	Dipper	Van Dorn	
	Syringe	Pole	
	Syringe Lot# 1145497	Filter Lot# 17232873	
	Secchi Equipment ID:	Secchi #1	
Collection Method			
x	Wading	Canoe/Kayak	
	From Shore	Electric Motor	
		Gasoline Motor	
	Depth Measured With	Secchi	

Water Level:	Normal
Flow:	Flowing
Matrix:	Fresh
Tide Stage:	
High Tide:	
Low Tide:	
Photos:	Yes
Meter ID:	Leia
Depth Gauge ID:	depth_gauge

Time Zone	Time	Total Depth (m)	Sample Depth (m)	DO (mg/L)	DO (%SAT)	Temp. (°C)	pH	Secchi Disk (m)	Sp COND (µmhos/cm)	Salinity (PPTth)
EST	1215	0.4	0.2	5.16	55.1	18.4	7.05	0.4	718	0.35
								VOB (s)		

Biological Samples Collected: HA LVS RPS Algal ID SCI

SBIO Visit ID: 85911 HA ID: 18070 RPS ID: 10017 Macrophyte ID: 12345 LIMS Sample ID Entered 2376998
Into The Macrophyte Module:

Parameter Suite	Parameter Methods (LIMS Test Codes)			Preservation			
				Type	Lot#	Expiration Date	pH Check
Microbiology	E. coli	Contract Lab	Benchmark	ICE			
Chlorophyll	CHLSUITE-W			ICE			
Physical/Aggregate	ALKALINITY, TURBIDITY, W-F, W-TSS			ICE			
Nutrients	W-CL-IC, W-COLOR, W-SO4-IC, W-TDS			ICE			
Filtered Nutrients	W-PO4-F	Field Filtered 0.45 µm Filter		ICE	Syringe Lot#:1145497; Filter Lot#:17232873		
Acid Preserved Nutrients	W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP			ICE	H2SO4*	SA2299040	11/04/23
Metals	W-ICPMS	W-ICP	W-HARD	ICE	HNO3**	NA2126030	6/2/23
Organics (LC)	W-E8321-DI	W-E8321-MS					
Macroinvertebrates	MI-FW-QLDC			Formalin	9.28091819T R		
Organics (GC)	W-PSNP-TQ	W-TR-SQ-R		Ice	*2.0 ml of H2SO4 Used Unless Noted Otherwise **2.0 ml of HNO3 Used Unless Noted Otherwise		
Molecular							
Periphyton	Algal ID			Ice			
Phytoplankton							
BOD							
DOC							
Other(s)					SyringeLot#	FilterLot#	
Field Comments:	Light rain / SCI Collection Time: 12:15 / Algal ID Collection Time: 1230						
Comments on COC:	Microbiology sample(s) submitted to contract laboratory.						
Relinquish Date:	12/20/2022	Signature:					

LIMS EVENT ID: SW-DIST-2022-12-21-01

WIN Import ID: 38720

Enter Field Parameters, Verify Station ID In LIMS DMT: DM 12/28/2022

QC Station ID, Field Parameters In LIMS DMT: MM 1/5/2023

Save Field Sheets on Network: MM 4/10/2023

Migrate Data to WIN: MM 4/10/2023

(Initials/Date)

(Initials/Date)

RQ-2022-12-05-06

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

Field ID/WIN

G3SW0067



Site Name: Clark Lake Drainage above Proctor Rd

STORET STATION
NUMBER:

DATE
(MM/DD/YY):

SAMPLING AGENCY:

FDEP SWROC

LOCATION:

RECEIVING BODY OF WATER:

Phillippi ~~Water~~ Creek

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>10</u>	20 19 18 17 16	15 14 13 12 11	<u>10</u> 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>18</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 <u>18</u> 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>5</u> ----- Primary Score <u>53</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. <u>5</u> 4 3 2 1
Secondary Habitat Components	Expected sinuosity given the stream width. No evidence of dredging or artificial straightening. No spoil banks.	Good sinuosity within old channelized area. Evidence of dredging in the past (>25 yrs) but mostly recovered.	Straightened with trapezoidal cross section, but has a small degree of sinuosity developed within channelized area.	Straightened or engineered by dredging, has trapezoidal or box cut cross section, lacks required pools. May have spoil banks.
Artificial Channelization <u>6</u>	20 19 18 17 16	15 14 13 12 11	10 9 8 7 <u>6</u>	5 4 3 2 1
Bank Stability Right Bank <u>9</u> <u>9</u> Left Bank	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. 10 <u>9</u> LR	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>3</u> <u>3</u> Left Bank	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 LR <u>3</u> 2 1
Riparian Zone Vegetation Quality Right Bank <u>4</u> <u>4</u> Left Bank ----- Secondary Score <u>38</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 <u>4</u> LR	Less than 25% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). 3 2 1

91 TOTAL SCORE

Date: 12/20/2022	Analyst: Ben Paswater, Megan Mahony	Signature: Ben Paswater
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21FLTPA

LATITUDE

LONGITUDE

Site Name: Clark Lake Drainage above Proctor Rd

SAMPLING AGENCY FDEP SW ROC

RECEIVING BODY OF WATER

Phillippi Creek

RIPARIAN ZONE / STREAM FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category): Forest/Natural ☐ Silviculture ☐ Field/Pasture ☐ Agricultural ☐ Residential ☒ 100 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 2 m wide .29 m/s .29 m/s .29 m/s .4 m deep .4 m deep .4 m deep
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank: 6 Right Bank: 6				Hydrologic Modification Score (per FT 3101) 6				
High Water Mark: .3 + .4 = .7 (m) (above present water level) (present depth) (above bed)				Artificially Impounded ☐ Yes ☒ No				
Artificially ☐ No ☒ Some recovery Channelized: ☐ Mostly recovered, more sinuous ☐ Recent, severe				Canopy Cover % ☐ Open ☐ Lightly Shaded (11-45%) ☐ Heavily Shaded ☒ Moderate Shaded (46-80%)				

SEDIMENT / SUBSTRATE

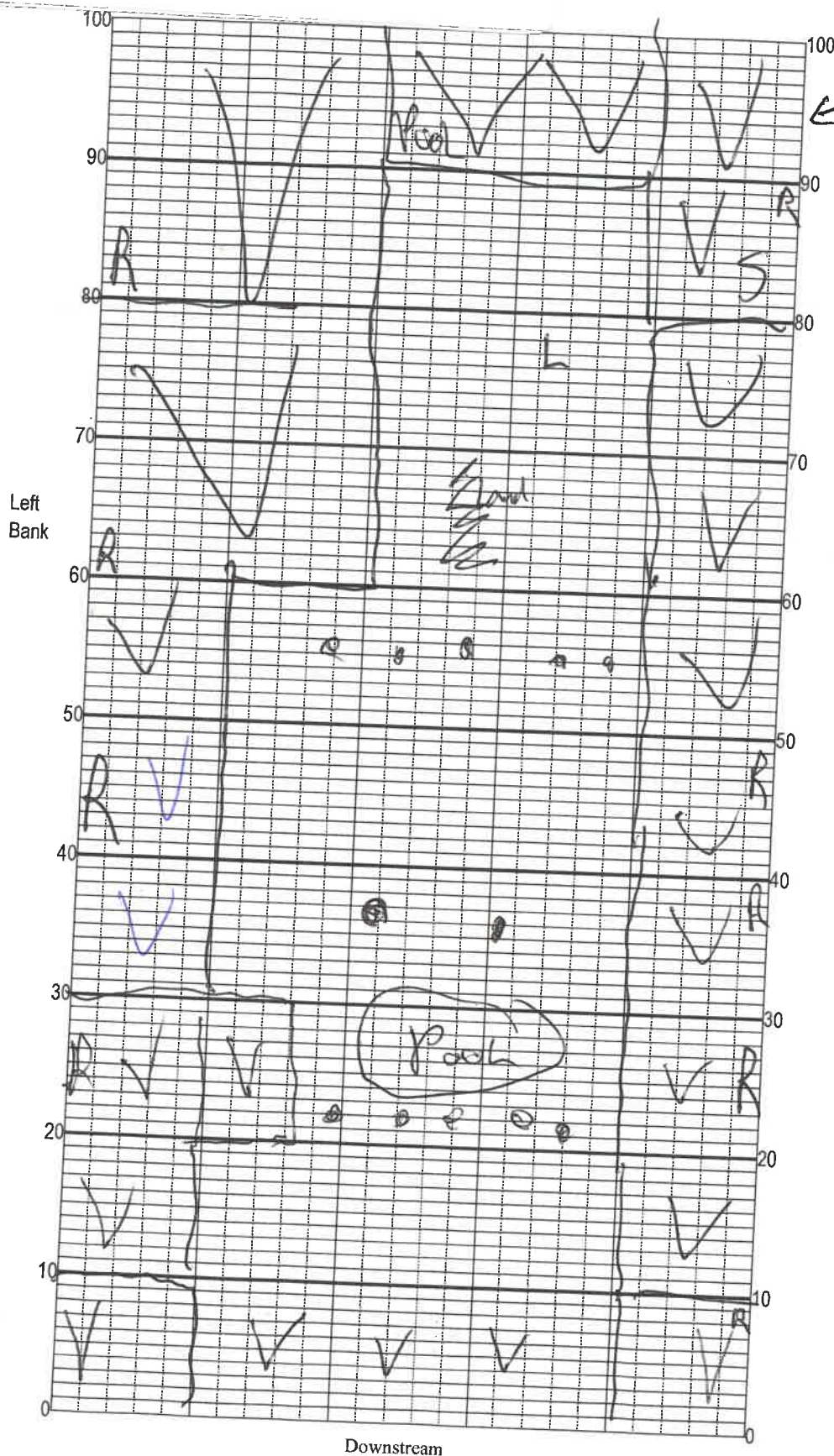
Sediment Oils ☒ Absent ☐ Slight ☐ Moderate ☐ Profuse			Sediment Odors ☒ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ Other (Specify):			Smothering of Substrates Sand Smothering: None ☐ Slight ☒ Moderate ☐ Severe ☐ Silt Smothering: None ☐ Slight ☒ Moderate ☐ Severe ☐ Algae Smothering: None ☐ Slight ☐ Moderate ☒ Severe ☐		
SUBSTRATE TYPE Assessment Tool: ☒ SCI ☒ RPS ☒ LVS ☐ LCI ☐ BioRecon % Coverage INVERT # Times Sampled PERI # Times Sampled Woody Debris (Snags) few 1 Undercut Banks / Roots 7 Leaf Packs or Mat 1 Aquatic Vegetation 50 7 Rock or Shell Rubble.. 3 Sand..... 1 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: 0.2 18.4 7.05 5.16 55.1 718 235 .4 Mid: Bottom: Meter ID: Leia TOTAL DEPTH 0.4 Water Odors Normal ☒ Petroleum ☐ Sewage ☐ Chemical ☐ Other ☐ Water Sample Taken? ☒ Yes ☐ No Sample Preserved? ☒ Yes ☐ No Lot Number: see Water Datasheet Algae Sample Taken? ☒ Yes ☐ No Sample Preserved? ☒ Yes ☐ No Lot Number: Ice Exp: System Type: Stream ☒ Lake ☐ Wetland ☐ Estuary ☐ Other (Specify) ☐					
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 ☐					
AMBIENT FIELD CONDITIONS / NOTES: ☒ The antecedent hydrologic conditions have been met to my best knowledge.								
SAMPLING TEAM Ben Deswater, Megan Maloney			SIGNATURE: Ben Deswater			DATE: 12/29/2022		

G3SW0067



Site Name: Clark Lake Drainage above Proctor Rd

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



Location:

Date:

Sampler:

100 m: Latitude

Longitude

0 m: Latitude

Longitude

Substrates: Code key, draw proportionate habitat abundance. %



Snags

Few



Roots/undercut banks

1.7



Leaf Packs (or mats)

50 few



Aquatic Macrophytes

50



ROCKS

1055 42



Sand



Pools

total # observed = 2

range expected =

Average width 2 m

Average depth .4 m

Velocity measured at 0.5 to 1.0 meter mark.

WQ & chemistry taken at 50 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:

 ✓ 1255
R 44 / 2500

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



Site Name: Clark Lake Drainage above Proctor Rd

DEP FORM FD 9000-32: LINEAR VEGETATION SURVEY FIELD

County:

Waterbody: See Sticker

Date:

12/20/2022

Signature:

Analyst:

M. Maloney

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

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	X							X	X	X		Micranthemum glomeratum															
Bacopa caroliniana (Lemon)												Micranthemum umbrosum		X		X											X
Bacopa monnieri							X					Myriophyllum aquaticum	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Bidens mitis												Najas guadelupensis															
Boehmeria cylindrica												Nitella sp.															
Centella asiatica												Nuphar luteum															
Ceratophyllum demersum												Orontium aquaticum															
Chara sp.		X		X			X					Panicum hemitomon															
Cicuta maculata												Panicum repens			X	X	X										
Cladium jamaicense												Panicum rigidulum															
Colocasia esculenta	X	X	X	X	X	X	X	X	X	X		Pistia stratioides		X								X	X				
Commelina diffusa	X	X	X	X	X	X	X	X	X	X		Polygonum glabra			X						X						
Commelina virginica												Polygonum hydropiperoides															
Crinum americanum												Polygonum punctatum															
Cyperus												Pontedaria cordata															
Diodia virginiana												Potamogeton illinoensis															
Eichhornia crassipes												Ruellia simplex (Mex Petunia)															
Eleocharis (wispy viviparous)												Sacciolepis striata															
Fontinalis sp. (Aquatic Moss)												Sagittaria kurziana															
Fraxinus caroliniana												Sagittaria lancifolia															
Hydrilla verticillata	X	X	X	X	X	X	X	X	X	X		Sagittaria latifolia															
Hydrocotyle sp.							X	X	X	X		Salvinia minima		X		X											
Hygrophila polysperma												Samolus parviflora															
Hymenachne amplexicaulis												Saururus cernuus															
Hymenocallis												Sparganium americanum															
Lachnanthes caroliniana												Schoenoplectus americanus															
Landoltia punctata												Sphagneticola trilobata (Wedelia)													X		
Lemna sp.			X	X								Typha sp.															
Limnophila sessiflora												Urochloa mutica (Brachiaria)															
Ludwigia leptocarpa												Vallisneria americana															
Ludwigia palustris												Zizania aquatica															
Ludwigia peruviana												Nymphoides cristata	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Ludwigia repens												Rumex verticillatus	X	X	X	X	X				X	X	X				
Luziola fluitans												Myriophyllum spicatum	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
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	X	X		X																							
>50% Macrophyte Coverage			X			X	X																				



Site Name: Clark Lake Drainage above Proctor Rd

Rapid Periphyton Survey Field Sheet

Date: 12/20/2022

Investigators: Ben Paswater, Theresa Arling

STORET Station Number:

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		94	60	1			36
	2					2			
	3					3			
	4					4	6		
	5					5	4		
	6					6			
	7					7	6		
	8					8	4		
	9					9			
10	1	6		80	70	1			73
	2					2			
	3					3	6		
	4					4			
	5					5	6		
	6					6			
	7					7	5		
	8					8			
	9					9	4		
20	1	6		92	80	1			90
	2					2			
	3					3			
	4					4			
	5					5			
	6					6			
	7	6				7			
	8	6				8			
	9	4				9			
30	1	6		72	90	1			45
	2					2			
	3	4				3			
	4					4			
	5	5				5			
	6					6			
	7					7			
	8	6				8			
	9					9			
40	1	6		22	100	1			
	2	5				2			
	3	4				3			
	4					4			
	5					5			
	6					6			
	7					7			
	8	5				8			
	9	6				9			
50	1			16		1			
	2					2			
	3					3			
	4	6				4			
	5	6				5			
	6	6				6			
	7	6				7			
	8					8			
	9					9			

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%.

Secchi depth
Estimated?

points ranked 4-6
total points assessed
% points ranked 4-6

Check accompanying data collected at same site/date.

Algal mat sample
Linear Veg Survey
Habitat Assessment
SCI/Biorecon
Water sample

RQ- 2022-12-05-06

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