FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

STRATEGIC MONITORING PROGRAM FIELD SHEET

Data Qualified? Yes / (No)

RQ-2016-07-18-1(

STORET Station Name: 7/20/2016 G3SD07202016-4 (Field ID) **Date:** _____ (mm/dd/yyyy)

STORET Station ID: Phillippi Creek Tributary SARABY0071FTM (STORET) **Latitude:** _____ (Decimal Degrees)

County: Sarasota **RQ** **Longitude:** _____ (Decimal Degrees)

Receiving Body of Water: Phillippi Creek **Field ID:** _____

Sampling Team Members	WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
Corey Anderson	✓		✓		
Ben Paswinter		✓		✓	✓

Sampling Equipment

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

Equipment ID _____

Collection Method

- [ ] Wading
- [x] From Shore
- [ ] Other (note below)

Via Boat
- [ ] Canoe/Kayak
- [ ] Electric Motor
- [ ] Gasoline Motor

Water Level: Dry / Low / (Normal) / High / Flooded

Matrix: (Fresh) / Marine / DI

Meter ID# 5 **Photos:** (Yes) / ~~No~~ GA

Tide Falling: Yes / No / (NA)

Time Zone	Time	Sample Depth (m)	Total Depth (m)	DO (mg/L)	DO (%SAT)	pH	Salinity (ppt)	Secchi Disk (m)	Sp COND (µmhos/cm)	Temp. (C°)
(EST)	1000	0.3	0.4	5.5	69	7.5	-	5 / 0.4	682	27.0
CEN										

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

Parameter Suite	Parameter Methods	Preservation	Acid Lot#	Expiration	pH Check
Preserved Nutrients	[x] W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP	[x] Ice [x] H_2SO_4	6168040	6/16/17	[x] <2
Metals	[ ] W-ICPMS [ ] W-ICP	[ ] Ice [ ] HNO_2			[ ] <2
Filtered Nutrients	[x] W-PO4-F [x] Field Filtered 0.45 µm Filter	[x] Ice			
Chlorophyll	[x] CHLSUITE-W	[x] Ice			
BOD	[x] BOD-UNIN	[ ] 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	[ ] MI-FW-QLDC	[ ] Formalin			
Microbiology	[ ] E Coli [ ] F Coli [ ] Entero [ ] QPCR	[ ] Ice			
Periphyton	[ ] ALGAE-ID	[ ] Ice			
Pesticides	[ ] W-PSNP-TQ [ ] W-AHERB-AA [ ] W-PYR-AA-R [ ] W-PC-AA-SF [ ] W-UHERB-AA [ ] W-GLYPH	[ ] Ice [ ] Other			

Place Preservative Sticker(s) Here (If Available)

Notes: Lot-A

Place Label Here (If Available)

Signature: _____ **Date:** 7-20-16

Field Parameters Entered into LIMS: _____ (Initials/Date) Field Parameters QC in LIMS: _____ (Initials/Date)

Date Migrated to STORET: _____ (Initials/Date) Field Sheets Scanned/Saved: _____ (Initials/Date)

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

RQ-2016-07-18-10
7/20/2016
G3SD07202016-4 Field ID
Phillippi Creek Tributary
SARABY0071FTM STORET

SAMPLE ID see sticker upper right ORG ID 21FLFTM LATITUDE
STORET # see sticker upper right COUNTY Sarasota LONGITUDE
DATE see sticker upper right TIME 1000 SAMPLING
SITE NAME Phillippe Creek Tributary
FIELD ID/NAME see sticker upper right 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	Commercial	Industry	Other (Specify)
				100			

Landscape Development Intensity Index (LDI):

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 : 3 Right Bank : 3

Hydrologic Modification Score (per FT 3101):

Typical Width (m) Depth (m)/Velocity (m/sec) Transect
2-5 m wide

0.2 m/s	0.2 m/s	0.2 m/s
0.1 m deep	0.4 m deep	0.1 m deep

High Water Mark: 0.6 (m) + 0.4 (above present water level) = 1.0 (present depth) (above bed)

Artificially Impounded ☐ Yes ☑ No

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)			
Undercut Banks / Roots			
Leaf Packs or Mat			
Aquatic Vegetation	2.2		
Rock or Shell Rubble..	0.9		
Sand.....			
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	27.0	7.5	5.5	69	682		0.4
Mid:								☑ VOB
Bottom								TOTAL DEPTH
								0.4

Meter ID: 5

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:	☐	☑	☐	☐
Aquatic Plants:	☐	☐	☑	☐
Iron/Sulfur Bacteria:	☑	☐	☐	☐

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 Corey Anderson, Raswater

SIGNATURE :

DATE : 7-20-16

RQ-2016-07-18-10
7/20/2016
G3SD07202016-4
Field ID
Phillippi Creek Tributary
STORET
SARABY0071FTM

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

County: Sarasota | Investigators: Paswaters, Anderson | 7-20-16 | Phillippe Creek Trib

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				60	1			
	2					2			
	3					3			
	4					4			
	5	N	N	96		5	N	N	89
	6					6			
	7					7			
	8					8			
	9					9			
10	1				70	1			
	2					2			
	3					3			
	4					4			
	5	N		90		5	N		46
	6					6			
	7					7			
	8					8			
	9					9			
20	1				80	1			
	2					2			
	3					3			
	4					4			
	5	N		87		5	N		89
	6					6			
	7					7			
	8					8			
	9					9			
30	1				90	1			
	2					2			
	3					3			
	4					4			
	5	N		92		5	N		83
	6					6			
	7					7			
	8					8			
	9					9			
40	1				100	1			
	2					2			
	3					3			
	4					4			
	5	N		94		5	N		30
	6					6			
	7					7			
	8					8			
	9					9			
50	1								
	2								
	3								
	4								
	5	N		46					
	6								
	7								
	8								
	9								

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- 2016-07-18-10

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%.

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

RQ-2016-07-18-1
7/20/2016
G3SD07202016-4
Field ID
STORET
SARABY0071FTM

SAMPLING AGENCY: FDEP South ROC	STORET STATION NUMBER:	Phillippi Creek Tributary	
RECEIVING BODY OF WATER: Phillippe Creek	COUNTY: Sarasota	LOCATION: Phillippe Creek Trib	FIELD ID/NAME:

Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components **Substrate Diversity** 6	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 3	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 3 Primary Score 26	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** 3	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 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 4 Left Bank 4	Bankfull > 60% of bank height. Slope of bank ≤ 60° from bankful to top of bank. Bankfull is within or above the 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 root zone with raw, eroded areas. 3 2 1
Riparian Buffer Zone Width Right Bank 3 Left Bank 3	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 3 Left Bank 3 Secondary Score 23	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

49 **TOTAL SCORE**

Date: 7-20-16	Analyst: Corey Anderson	Signature:

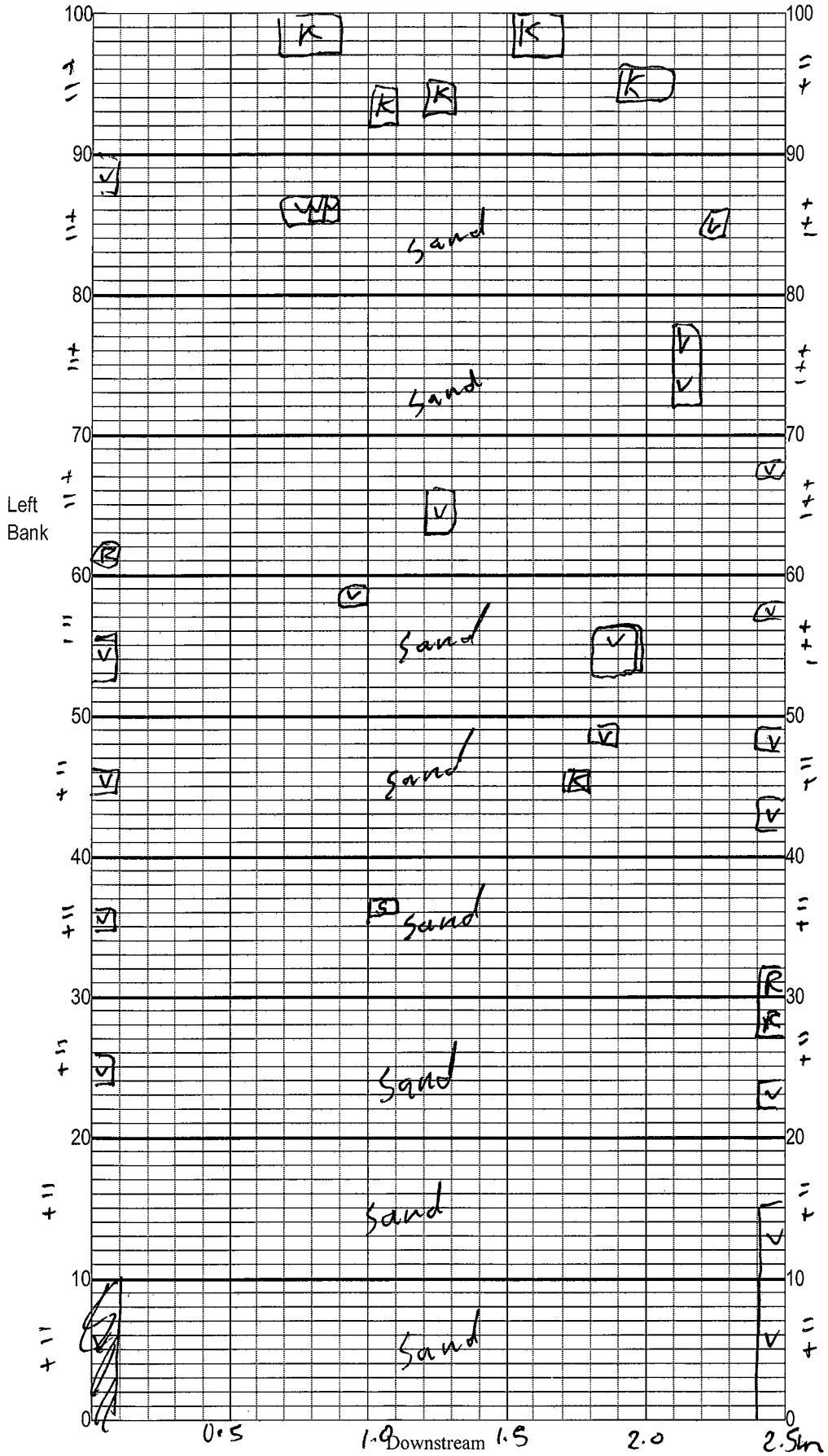
DEP Form FD 9000-4 Stream/River Habitat Assessment Sketch Sheet

7/20/2016

G3SD07202016-4
Field ID

Phillippi Creek Tributary

STORET
SARABY0071FTM



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

Date: 7-20-16

Sampler: Corey Anderson

100 m: Latitude 27.28711
Longitude -82.44461

0 m: Latitude 27.28775
Longitude -82.44503

Substrates: Code key, draw proportionate habitat abundance. %

S	Snags	
R	Roots/undercut banks	
	Leaf Packs (or mats)	
V	Aquatic Macrophytes	2.2%
K	Rocks	0.9%
	Pools	total # observed = ____ # range expected = ____

Average width 2.5 m
Average depth 0.2 m

Velocity measured at 0 meter mark. 0.2 m/sec

WQ & chemistry taken at 100 meter mark.

Habitat Smothering: entire channel
Note areas (on map) where sand or silt is smothering substrates, limiting habitability.

Bank Stability: one slope, bend % Banks Eroded
Note areas (on map) with unstable, eroding banks.

Riparian Buffer Width: 0 - 3 m
Note areas (on map) where natural vegetation is altered or eliminated.

Plants observed / other notes:
wedelia, dakes, Alternanthera, Commelina diffusa, Hydrilla, Hygrophila polysperma, Hydrocotyl

Roots = 6/2500
snags = 1/2500
✓ Veg = 54/2500
✓ Rock = 22/2500

$2m^2 = 20$ squares

RQ-2016-07-18-1

DEP FORM FD 9000-32: LINEAR VEGETATION SURVEY FIELD SHEET

7/20/2016

G3SD07202016-4
Field ID

Phillippi Creek Tributary

STORET
SARABY0071FTM

Waterbody: Phillippi Creek Tributary | Date: 7-20-16 | County: Sarasota

Analyst: Corey Anderson | Signature:

Comments:

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.

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 sp.				✓					✓		
Hygrophila polysperma	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Hymenachne amplexicaulis											
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											
Sphagneticola trilobata (Wedelia)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Typha											
Urochloa mutica (Brachiaria)											
Vallisneria americana											
Zizania aquatica											
Leather fern (Acrostichum danaeifolium)				✓							