FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PLAN FIELD SHEET

January 2020

Meter Passed End of Day CCV: Yes / No

WIN Station Name: JG Creek @ 1000m DS of control structure **Date:** 11/30/2021

WIN/Field ID: G3CE0028 **WBID:** 3084 **ENR:** - **Latitude:** 28.078

County: OSCEOLA **Org ID:** 21FLCEN **Longitude:** -80.9

Receiving Body of Water: Upper St. Johns **RQ-** 2021-07-19-16

Sampling Team Members	WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
[x] Terry Riordan		x		x	x
[x] Victoria Schwartz	x		x		
[ ]					
[ ]					

Sampling Equipment

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

Depth measured with: Secchi

Secchi Equipment ID: Light

Collection Method

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

Water Level: [x] Normal [ ] Low [ ] High [ ] Dry [ ] Pooled [ ] Flooded

Meter ID# SHRIMP TRAP

Photos: YES **Flow:** FLOW **Tide:**

Tide Times: High: Low:

Biological Samples Collected: [ ] None [x] HA [x] SCI [x] RPS [ ] Algae ID [x] LVS [ ] LVI Other:

SBIO ID Numbers: SBIO 83558 RPS 9823 VASCULAR 12026 HA 17118 LIMS 2291991

Notes:

SUNNY

Duplicate Sample

Time Zone: EST **Time:** _____ **Field ID:** _____ (WIN ID_DUP)

WIN DMT Activity ID: _____

Blank

Time Zone: _____ **Time:** _____ **Field ID:** _____ (Blank Type_DDMMYYYY)

DI Source: _____ **Location:** _____

DI Type: _____ **Equipment ID:** _____

DI Container (Name/ID): **DI Container Type:**

LIMS EVENT ID: CEN-DIST-2021-12-01-02 **WIN Import ID:** 31300

Enter Field Parameters, Verify Station ID In LIMS DMT: KWM 12/8/21 (Initials/Date) **QC Station ID, Field Parameters In LIMS DMT:** EB 12/9/21 (Initials/Date)

Scan/Save Field Sheets KWM 3/1/22 (Initials/Date) **Migrate Data to WIN:** KWM 3/1/22 (Initials/Date) **Verify Data In WIN:** _____ (Initials/Date)

RQ-2021-07-19-16
Customer: WQAP
Project ID: SMP

Collected By: Terry Riordan, Victoria Schwartz
Field Report Prepared By: Terry Riordan
Sampling Agency: FDEP

Place Label Here

WIN ID/Field ID: G3CE0028

Location: JG Creek @ 1000m DS of control structure

Comments:

Matrix: Fresh

(Check one) ☒ GRAB ☐ COMPOSITE

Date	Time	DO (mg/L)	DO (%SAT)	Temp. (C⁰)	pH	Sample Depth (m)	Secchi Disk (m)	Total Depth (m)	Sp COND (µmhos/cm)	Salinity (PPTh)
	1145 EST	3.81	38.5	15.8	6.18	0.3	0.8 ☐ VOB (S)	1.4	196.6	0.09
11/30/2021										
	EST									

Parameter Suite	Parameter Methods				Preservation	pH Check	# Bottles sent to Lab	Bottle Group
Preserved Nutrients (P-500ML)	☒ W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP				☒ Ice ☒ H_2SO_4*	☒ <2	1	A
	Lot #	SA1105060	**Exp:**	4/30/22				
Metals (P-500ML)	☒ W-ICPMS ☒ W-ICP ☒ W-HARD				☒ Ice ☒ HNO_3*	☒ <2	1	A
	Lot #	NA1105100	**Exp:**	6/7/22				
Filtered Nutrients (P125ML)	☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter				☒ Ice		1	A
	Filter Lot #	17135566						
	Syringe Lot #	1112035						
Chlorophyll (BP-1L)	☒ CHLSUITE-W				☒ Ice		1	A
Physical/Aggregate (Fresh) (P-1L)	☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-Cl-IC / W-COLOR / W-SO4-IC / W-TDS				☒ Ice		1	A
Physical/Aggregate (Marine) (P-1L)	☐ Alkalinity / W-BR-IC / W-F / W-TSS / TURBIDITY				☐ Ice			
Macroinvertebrates (PJ-2L)	☐ MI-FW-QLDC	**Formalin Lot #**	10.50911HN		☒ Formalin		2	B
Periphyton (PT-50ML)	☐ ALGAE-ID				☐ Ice			
Microbiology (Contract Lab Bottle)	☒ E Coli ☐ F Coli ☐ Enterococci ☐ Contract Lab				☒ Ice		2	A
Molecular (QPCR-P-500ML)	☐ PCR-HF183 ☐ PCR-BacR ☐ PCR-DG3 ☐ PCR-GULL2 ☐ PCR-GFD ☐				☐ Ice			
Tracers (BG-500ML)	☐ W-E8321-DI ☐ W-E8321-MS				☐ Ice			
Pesticides (BG-500ML) (BG-1L)	x ☒ W-E8321-DI x ☒ WE8321-MS x ☒ W-PSNP-TQ ☐ W-CT-CL-R ☐ W-PCL-TQ-R ☐ W-CARB-AA (5 ml of MCAA** Buffer Solution)				☒ Ice		5	A
Phytoplankton/Periphyton	☐ DTY-QN-C ☐ PKD-QN-BV				☐ Ice			

Name:
Terry Riordan
Victoria Schwartz

Signature: Victoria Schwartz

Date: 12/2/21

*2.0 ml of Preservative used unless noted otherwise.
**MCAA: Monochloroacetic acid buffer solution

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

SCI

SAMPLE ID
COUNTY Osceola
DATE 11/30/21
SITE NAME JG Creek @ 1000 m DS of control structure
FIELD ID/NAME G3CE0028
ORG ID
WIN STORET # G3CE0028
TIME 11:45
LATITUDE 28.078
LONGITUDE -80.9
SAMPLING AGENCY 21FLCEN
RECEIVING BODY OF WATER ~~NS~~ Upper St. Johns

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)
35		60		5			

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: 718 Right Bank: >18

Hydrologic Modification Score (per FT 3101):

High Water Mark: 0.3 (m) + 1.4 (above present water level) = 1.7 (present depth) (above bed)

Artificially Impounded ☒ Yes ☐ No

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

8 sec	15	10 m wide
	0.125 m/s	
	1.4 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)	1.7	7	
Undercut Banks / Roots	0.2		
Leaf Packs or Mat	0.5	6	
Aquatic Vegetation	2.0	7	
Rock or Shell Rubble..			
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	15.8	6.18	3.81	38.5	196.6	0.09	0.8
Mid:								☐ VOB
Bottom								TOTAL DEPTH

Meter ID: Shrimp Trap

TOTAL DEPTH: 1.4

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: WA1105100 Exp: 6/7/22

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:
Sunny
SCI conducted from jon boat

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

SAMPLING TEAM Terry Riordan + Victoria Schwartz

SIGNATURE:

DATE: 11/30/21

62-160.800, F.A.C.

Revision Date: January 2017

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

SAMPLING AGENCY:	~~STORET~~ WIN STATION NUMBER:	DATE (MM/DD/YY):	RECEIVING BODY OF WATER:
21FLCEN	G3CE0028	11/30/21	Upper St. Johns
REMARKS:	**COUNTY:**	**LOCATION:**	**FIELD ID/NAME:**
	Osceola	Jane Green Creek	JG Creek @ 1000m DS of control structure

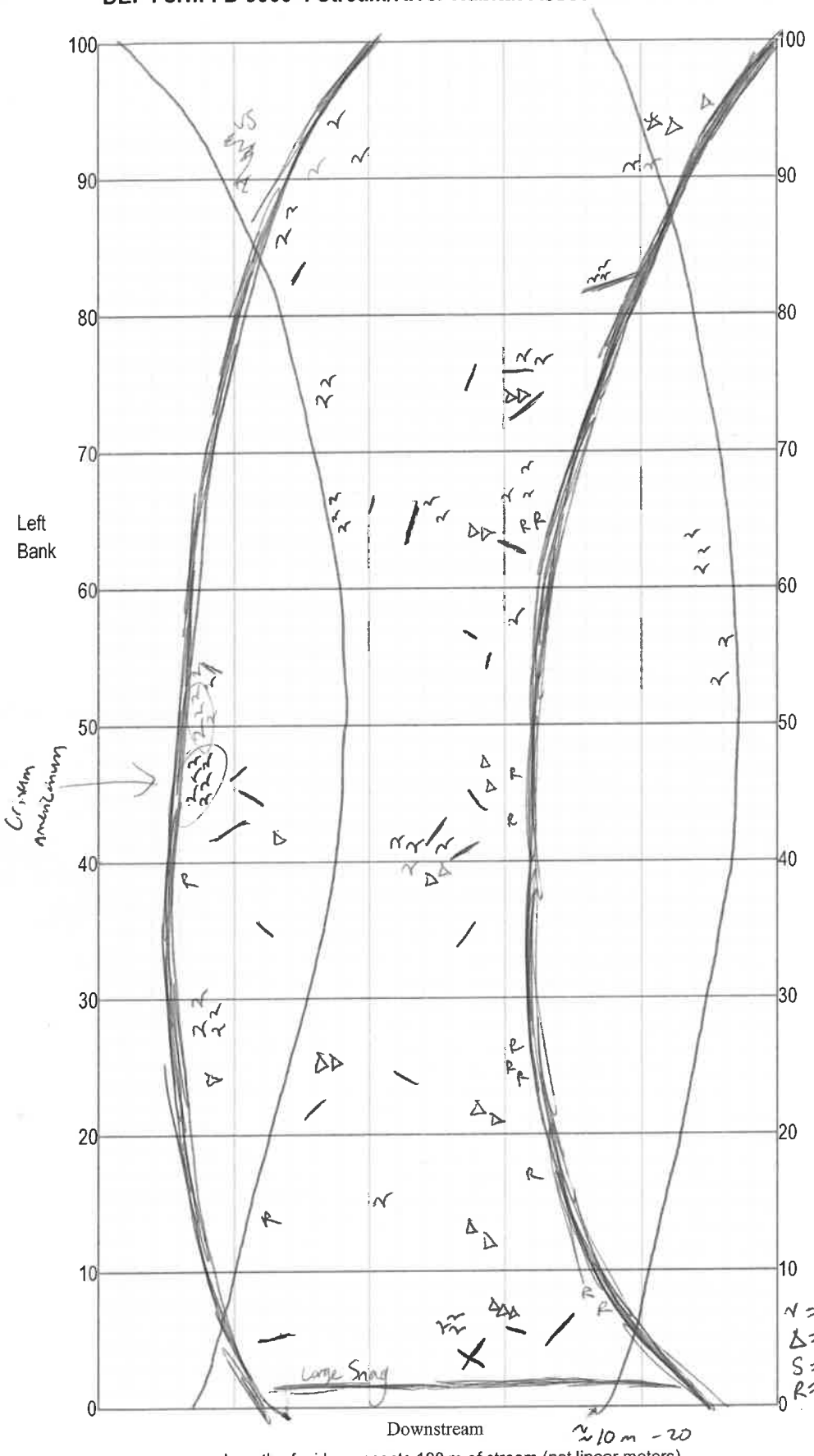
Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components **Substrate Diversity** 7	Four or more major productive habitats present [snags, tree roots, aquatic vegetation, leaf packs (partially decayed), rock] 20 19 18 17 16	Three major productive habitats present. Adequate habitat. 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 12	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 16 Primary Score 38	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** 15	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 10 Left Bank 10	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 75	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

113 **TOTAL SCORE**

Date:	Analyst:	Signature:
11/30/21	Terry Riordan + Victoria Schwartz	TR / VS

(water control structure US)

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



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

Narrower/shallower Downstream

avg width = 15 m

Location: Jane Green Creek

Date: 11/30/2

Sampler: Victoria Schwartz

100 m: Latitude	
Longitude	
0 m: Latitude	
Longitude	

Substrates: Code key, draw proportionate habitat abundance.		%
/	Snags	1.7
R	Roots/undercut banks	0.2
Δ	Leaf Packs (or mats)	0.5
~	Aquatic Macrophytes	2.0
	Pools	total # observed = ____ # range expected = ____

Average width 15 m

Average depth 1.4 m

Velocity measured at 50 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:

- Heavy silt root + leaves + snags
- Very dark water
- SCI conducted from jon boat due to stream size
  - ↳ expect at least 2 pools present

N = 30 m² / 1500 m² = 2%

Δ = 8 m² / 1500 m² = 0.5%

R = 3 m² / 1500 m² = 0.2

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

Waterbody: Jane Creek | Date: 1/30/21 | County: Osceola | WBID Number: G3CE0028

Analyst: Terry Riordan | Signature:

Comments:

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 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					D	D	D		✓		
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"	X	X	X	X	X				X	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											
Urochola mutica							✓		✓		

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: Jane Green Creek | County: Osceola | Date: 11/30/21 | Investigators: Terry Riordan + Victoria Schwartz

~~STORET~~ WIN Station Number: G3CE0028

Transect (m)	Point 1=right 9=left	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover
0	1	N		
	2	N		
	3	X		
	4	X		
	5	X		81
	6	X		
	7	X		
	8	N		
	9	N		
10	1	N		
	2	N		
	3	X		
	4	X		
	5	X		78
	6	X		
	7	X		
	8	N		
	9	N		
20	1	N		
	2	N		
	3	N	✓	
	(4)	N	✓	
	5	N	✓	26
	6	N	✓	
	(7)	4		
	8	N		
	9	N		
30	1	N		
	2	N		
	(3)	3		
	4	N		
	5	N	✓	52
	6	N	✓	
	7	N	✓	
	8	N		
	9	N		
40	1	N		
	2	N		
	3	N	✓	
	4	N	✓	
	5	N	✓	82
	6	N	✓	
	7	N		
	8	N		
	9	N		
50	1	N		
	(2)	3		
	3	N		
	(4)	4		
	5	N	✓	46
	6	N	✓	
	7	N	✓	
	8	N		
	9	N		

Transect (m)	Point 1=right 9=left	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover
60	1	N		
	(2)	~~X~~ 4		
	3	X		
	4	N	✓	
	5	N	✓	62
	6	N	✓	
	7	X		
	8	N		
	9	N		
70	(1)	5		
	2	N		
	3	N		
	4	N	✓	
	5	N	✓	50
	6	N	✓	
	7	N		
	8	N		
	9	N		
80	1	N		
	2	N		
	(3)	3		
	4	N	✓	
	5	N	✓	2
	6	N	✓	
	7	N		
	8	N		
	9	N		
90	1	N		
	2	N		
	3	N		
	4	N	✓	
	5	N	✓	38
	6	N	✓	
	7	N		
	8	N		
	9	N		
100	1	N		
	2	N		
	(3)	~~4~~ 4		
	4	N		
	5	N	✓	4
	6	N	✓	
	7	N	✓	
	8	N		
	9	N		

Secchi depth	0.8
Estimated?	
# points ranked 4-6	5
total points assessed	~~99~~ 87
% points ranked 4-6	~~5~~ 6%

- VS 12/28/21

Check accompanying data collected at same site/date.	
Algal mat sample	
Linear Veg Survey	✓
Habitat Assessment	✓
SCI/Biorecon	✓
Water sample	✓

RQ- 2021-07-19-16

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

~~Algae seems to have preference for Alligatoria.~~ (VS)

Algae mostly silt smothered!

Shallower

Deeper

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. Dark water/logs

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%.