



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STRATEGIC MONITORING PLAN FIELD SHEET

January 2020

Meter Passed End
of Day CCV
☒ Yes ☐ No

WIN Station Name: Johns Lake @ conservation area dock

Date: 8/9/2021

WIN/Field ID: G1CE0111

WBID: 2873

ENR: -

Latitude: 28.531

County: ORANGE

Org ID: 21FLCEN

Longitude: -81.61

Receiving Body of Water: Ocklawaha

RQ- 2021-08-09-32

Sampling Team Members		WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
☒	Leif Boman		☒		☒	☒
☒	Victoria Schwartz	☒		☒		
☐						
☐						

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

Water Level: ☒ Normal ☐ Low ☐ High ☐ Dry ☐ Pooled ☐ Flooded						Meter ID# CRAW DADDY	
Photos: YES		Flow: FLOW		Tide:		Tide Times: High: Low:	
Biological Samples Collected:		☐ None	☒ HA	☐ SCI	☒ RPS	☒ Algae ID	☒ LVS ☐ LVI Other:
SBIO ID Numbers: SBIO 82839 RPS 9777 MACROPHYTE 11946						LIMS 2268327	
Notes: SUNNY & HOT							

Duplicate Sample

Time Zone: EST	Time:	Field ID:	(WIN ID_DUP)
WIN DMT Activity ID:			

Blank

Time Zone:	Time:	Field ID:	(Blank Type_DDDMMYYY)
DI Source:	Location:		
DI Type:	Equipment ID:		
DI Container (Name/ID):		DI Container Type:	

LIMS EVENT ID: CEN-DIST-2021-08-10-01

WIN Import ID: 28895

Enter Field Parameters, Verify Station ID In LIMS DMT: KWM 9/14/21

(Initials/Date)

QC Station ID, Field Parameters In LIMS DMT: VLS 10/5/21

(Initials/Date)

Scan/Save Field Sheets KWM 10/5/21

(Initials/Date)

Migrate Data to WIN: KWM 10/5/21

(Initials/Date)

Verify Data In WIN:

(Initials/Date)



RQ-2021-08-09-32

Customer: WQAP

Project ID: SMP

Collected By: Leif Boman, Victoria Schwartz

Field Report Prepared By: Leif Boman

Sampling Agency: FDEP

Place Label Here

WIN ID/Field ID:



G1CE0111

Location: Johns Lake @ conservation area dock

Comments:

Matrix: Fresh

(Check one)

☒ GRAB☐ COMPOSITE

Date	Time	DO (mg/L)	DO (%SAT)	Temp. (C°)	pH	Sample Depth (m)	Secchi Disk (m)	Total Depth (m)	Sp COND (µmhos/cm)	Salinity (PPT _h)		
	1056 EST	5.75	77.2	30.9	7.19	0.3	0.8 ☐ VOB (S)	1.8	267.1	0.12		
8/9/2021												
	1059 EST	5.37	71.1	30	7.08	1.3			264.9	0.12		
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 ☒ H2SO4*		☒ <2	1	A		
		Lot #	SA1105060		Exp:	4/30/22						
Metals (P-500ML)		☐ W-ICPMS ☐ W-ICP ☐ W-HARD				☐ Ice ☐ HNO3*		☐ <2				
		Lot #			Exp:							
Filtered Nutrients (P125ML)		☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter				☒ Ice			1	A		
		Filter Lot #	17135566									
		Syringe Lot #	1091364									
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 #			☐ Formalin						
Periphyton (PT-50ML)		☒ ALGAE-ID				☒ Ice			1	A		
Microbiology (Contract Lab Bottle)		☒ E Coli ☐ F Coli ☐ Enterococci ☐ Contract Lab				☒ Ice			1	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)		W-E8321-DI	WE8321-MS	W-PSNP-TQ	W-CT-CL-R	☐ Ice						
Phytoplankton/Periphyton		W-PCL-TQ-R	W-CARB-AA (5 ml of MCAA** Buffer Solution)	DTY-QN-C	PKD-QN-BV	☐ Ice						
Name: Leif Boman Victoria Schwartz					Signature: Victoria Schwartz				Date: 8/9/21			

*2.0 ml of Preservative used unless noted otherwise.

**MCAA: Monochloroacetic acid buffer solution

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

SAMPLE ID _____ ORG ID _____ LATITUDE 28.531
 COUNTY Orange STORET # GICE0111 LONGITUDE -81.61
 DATE 8/9/21 TIME 10:56 SAMPLING AGENCY 21PLCEN
 SITE NAME John's Lake outlet
 FIELD ID/NAME GICE0111 RECEIVING BODY OF WATER Ocklawaha

RIPARIAN ZONE / STREAM FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category): Forest/Natural <u>40</u> Silviculture <u>5</u> Field/Pasture <u>50</u> Agricultural <u>5</u> Residential <u>5</u> Commercial <u>5</u> Industry <u>5</u> 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 <u>8 sec.</u> <u>24</u> m wide _____ m/s <u>0.125</u> m/s _____ m/s				
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank: <u>11</u> Right Bank: <u>>18</u>				Hydrologic Modification Score (per FT 3101) _____				
High Water Mark: <u>0.1</u> + <u>1.8</u> = <u>1.9</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 <u>N/A</u> ☐ Absent ☐ Slight ☐ Moderate ☐ Profuse			Sediment Odors <u>N/A</u> ☐ 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 ☒ LV\$ ☐ LCI ☐ BioRecon % Coverage INVERT # Times Sampled PERI # Times Sampled Woody Debris (Snags) _____ Undercut Banks / Roots _____ Leaf Packs or Mat _____ Aquatic Vegetation _____ 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: <u>0.3</u> <u>30.9</u> <u>7.19</u> <u>5.75</u> <u>77.2</u> <u>267.1</u> <u>0.12</u> <u>0.8</u> Mid: _____ Bottom: <u>1.3</u> <u>30.0</u> <u>7.08</u> <u>5.37</u> <u>71.1</u> <u>264.9</u> <u>0.12</u> <u>1.8</u> Meter ID: <u>Craw Daddy</u>					
Water Odors Normal ☒ Petroleum ☐ Sewage ☐ Chemical ☐ Other ☐			Water Surface Oils Normal ☒ Sheen ☐ Globbs ☐ Slick ☐ Other ☐			Color Tannic ☒ Green (Algae) ☐ Clear ☐ Other (Specify) _____		
Water Sample Taken? ☒ Yes ☐ No Sample Preserved? ☒ Yes ☐ No Lot Number: <u>SALLOSOWO</u> Exp: <u>4/30/22</u>			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: ☒ ☐ ☐ ☐ KWM 9/14/21 82839			System Type: Stream ☒ Lake ☐ Wetland ☐ Estuary ☐ Other(Specify) _____					
AMBIENT FIELD CONDITIONS / NOTES: <u>Sunny, signs of herbicide spraying at/around dock</u> <u>Invasive apple snail eggs present</u> _____								
SAMPLING TEAM <u>Leif Boman / Victoria Schwarz</u> SIGNATURE: <u>[Signature]</u> DATE: <u>8/9/21</u>								

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

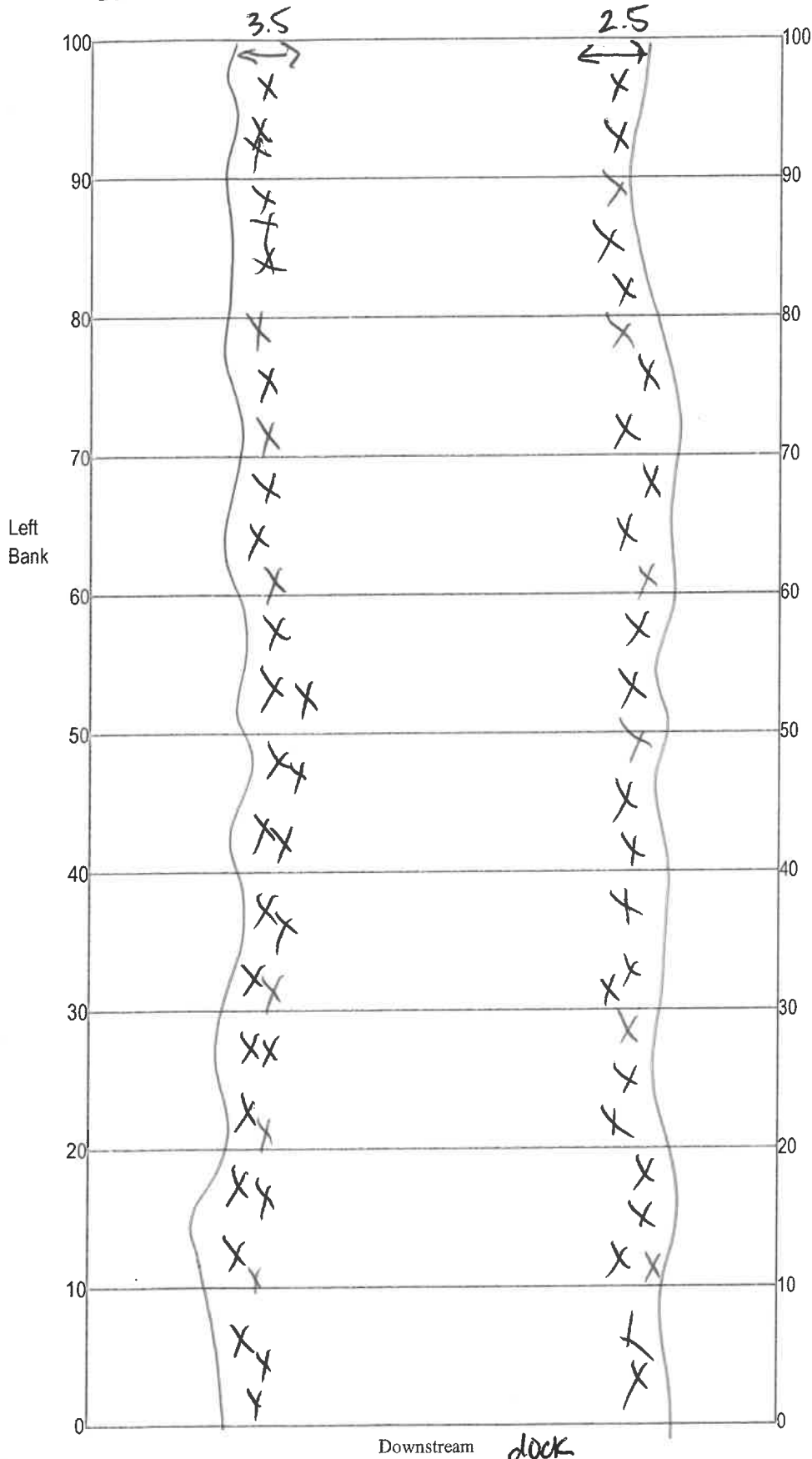
SAMPLING AGENCY: <u>FDAP - CAROL</u>		STORET STATION NUMBER:	DATE (MM/DD/YY): <u>8/9/21</u>	RECEIVING BODY OF WATER: <u>Ocklawaha</u>
REMARKS:	COUNTY: <u>Orange</u>	LOCATION: <u>John's Lake Outlet</u>		FIELD ID/NAME: <u>GICE011</u>

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>4</u>	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 <u>4</u> 3 2 1
Substrate Availability <u>3</u> <u>LB</u>	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 <u>11</u>	6% to 15% major productive habitat 10 9 8 7 6	Less than 5% major productive habitat 5 4 <u>3</u> 2 1
Water Velocity <u>11</u> <u>8 seconds</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 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 <u>11</u>	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>21</u> <u>23</u> <u>20</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 or straightening 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>9</u>	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	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.	Only meets 2 of the 3 requirements for optimal bank stability.	Only meets 1 of the 3 requirements for optimal bank stability.	Bankfull < 60% of bank height. Slope of bank > 60°. Bankfull is below the woody root zone with raw, eroded areas.
Right Bank <u>10</u> Left Bank <u>9</u>	10 9	8 7 6	5 4	3 2 1
Riparian Buffer Zone Width	Width of vegetation greater than 18 m	Width of vegetation >12 to 18m	Width of vegetation 6 to 12 m. human activities close to system	Less than 6 m of buffer zone due to intensive human activities
Right Bank <u>10</u> Left Bank <u>5</u>	10 9	8 7 6	<u>5</u> 4	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.	>50% to 80% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). Some disruption in community observed.	25% to 50% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). Disruption obvious.	Less than 25% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions).
Right Bank <u>4</u> Left Bank <u>4</u> ----- Secondary Score <u>51</u>	10 9	8 7 6	5 4	3 2 1

82 74 LB TOTAL SCORE

Date: <u>8/9/21</u>	Analyst: <u>Leif Bowen, Victoria Schwartz</u>	Signature: <u>[Signature]</u>
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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).

Location: John's Lake OutletDate: 8/9/21Sampler: Leif Boman
Victoria Schwartz100 m: Latitude _____
Longitude _____0 m: Latitude _____
Longitude _____

Substrates: Code key, draw proportionate habitat abundance. %

☐ Snags _____☐ Roots/undercut banks _____☐ Leaf Packs (or mats) _____☒ Aquatic Macrophytes 2.5☐ _____☐ _____☐ Pools total # observed = _____
range expected = _____Average width 2.4 mAverage depth 1.8 m

Velocity measured at _____ 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:

Hydrilla + other submerged plants along shoreline severely smothered by filamentous algae

DEP FORM FD 9000-32: LINEAR VEGETATION SURVEY FIELD SHEET																																									
Waterbody: John's Lake								Date: 8/9/21						County: Orange						Storet Number: GICE D11																					
Analyst: Leif Boman, Victoria Schwartz								Signature: [Handwritten 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.																																									
										Meter Mark																					Meter Mark										
HERBACEOUS SPECIES										0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	Specimen collected (check)	HERBACEOUS SPECIES										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											/	/	/	/	/						Micranthemum glomeratum																				
Bacopa caroliniana																					Micranthemum umbrosum																				
Bacopa monnieri																					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																																									

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: John's Lake County: Orange Date: 8/9/21 Investigators: Victoria Schwartz

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	5			60	1	5		
	2	5				2	6		
	3	2	✓			3	4		
	4	2	✓			4	2	✓	
	5	2	✓	0		5	2	✓	0
	6	2	✓			6	2	✓	
	7	2	✓			7	2	✓	
	8	5				8	5		
	9	5				9	6		
10	1	5			70	1	5		
	2	6				2	5		
	3	2	✓			3	2	✓	
	4	2	✓			4	2	✓	
	5	2	✓	0		5	2	✓	0
	6	2	✓			6	2	✓	
	7	2	✓			7	2	✓	
	8	4				8	3		
	9	5				9	5		
20	1	6			80	1	6		
	2	6				2	4		
	3	5	✓			3	2	✓	
	4	2	✓			4	2	✓	
	5	2	✓	0		5	2	✓	0
	6	2	✓			6	2	✓	
	7	2	✓			7	2	✓	
	8	5				8	4		
	9	5				9	5		
30	1	6			90	1	5		
	2	5				2	5		
	3	4				3	5		
	4	2	✓			4	2	✓	
	5	2	✓	0		5	2	✓	0
	6	2	✓			6	2	✓	
	7	2	✓			7	2	✓	
	8	4				8	6		
	9	4				9	5		
40	1	4			100	1	5		
	2	5				2	4		
	3	5				3	2	✓	
	4	2	✓			4	2	✓	
	5	2	✓	0		5	2	✓	0
	6	2	✓			6	2	✓	
	7	2	✓			7	2	✓	
	8	5				8	5		
	9	5				9	5		
50	1	5			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.				
	2	6			Record "X" for points shallower than Secchi depth for which substrate cannot be seen or reached with the hand. No estimated rank.				
	3	2	✓		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.				
	4	2	✓		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%.				
	5	2	✓	0					
	6	2	✓						
	7	2	✓						
	8	5							
	9	5							

STORET Station Number:

GICE0111

Secchi depth 0.8
Estimated?

points ranked 4-6 49
total points assessed 99
% points ranked 4-6 49%

Check accompanying data collected at same site/date.

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

RQ- 2021-08-09-32

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

Severe filamentous algae smothering of submerged plants along both shorelines