



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

STRATEGIC MONITORING PLAN FIELD SHEET

January 2022

Meter Passed End

of Day CCV

☒ Yes / No

WIN Station Name: Cato Lake South

Date: 5/31/2022

WIN/Field ID: G4SW0102

WBID: 1340K

ENR:

Latitude: 28.8626

County: CITRUS

Org ID: 21FLTPA

Longitude: -82.3268

Receiving Body of Water: -

RQ: 2022-05-30-09

Sampling Team Members		WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
☒	Ben Paswater	x		x	x	x
☒	Devin Mathias		x			
☐						
☐						

Sampling Equipment	
☒ Sample Container	☐ Carboy
☐ Dipper	☐ Van Dorn
☐ Syringe	☐ Pole
Depth measured with: Secchi	
Secchi Equipment ID: Secchi #3	
Collection Method	
☐ Wading	☒ Canoe/Kayak
☐ From Shore	☐ Electric Motor
☐ Other	☐ Gasoline Motor

Water Level: ☒ Normal ☐ Low ☐ High ☐ Dry ☐ Pooled ☐ Flooded

Meter ID# SWD

Photos: YES

Flow: NA

Tide:

Tide Times:

High: Low:

Biological Samples Collected: ☐ None ☐ HA ☐ SCI ☐ RPS ☐ Algae ID ☐ LVS ☒ LVI Other:

SBIO ID Numbers: Visit ID: 84316 LVI: 12163

Notes:

Duplicate Sample

Time Zone: EST Time: Field ID: N/A (WIN ID_DUP)

WIN DMT Activity ID:

Blank

Time Zone: EST Time: 1230 Field ID: FB_05312022 (Blank Type_DDMMYYYY)

DI Source: SWROC Location: SWROC

DI Type: Field Blank Equipment ID:

DI Container (Name/ID): Lil Boy DI Container Type: Carboy

LIMS EVENT ID: SW-DIST-2022-06-01-01 WIN Import ID: 34614

Enter Field Parameters, Verify Station ID In LIMS DMT: MM 6/6/2022 QC Station ID, Field Parameters In LIMS DMT: KG 06/21/2022

Scan/Save Field Sheets NA 08/30/2022 Migrate Data to WIN: NA 08/24/2022 Verify Data In WIN: NA 08/24/2022



RQ-2022-05-30-09
Customer: SW-DIST
Project ID: STRATEGIC MONITORING PLAN

Collected By: Ben Paswater, Devin Mathias
Field Report Prepared By: Ben Paswater
Sampling Agency: FDEP

Place Label Here WIN ID/Field ID: G4SW0102 Location: Cato Lake South						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)
	1250 EST	1.8	22.8	27.6	6.88	0.3	1.2 ☐ VOB (S)	1.4	363	0.17
5/31/2022							Central Lab please use top row for login purposes			
	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 ☒ H2SO4*		☒ <2	1	A
		Lot #	SA1308030		Exp:	12/01/2022				
Metals (P-500ML)		☒ W-ICPMS ☒ W-ICP ☒ W-HARD				☒ Ice ☒ HNO3*		☒ <2	1	A
		Lot #	NA1105100		Exp:	06/07/2022				
Filtered Nutrients (P125ML)		☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter				☒ Ice			1	A
		Filter Lot #	17232873		Syringe Lot#	1145497				
Biochemical Oxygen Demand (BP-1L)		BODTEST OV-BODUNIN				ICE				
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-F / W-TSS / TURBIDITY				☐ Ice				
Macroinvertebrates (PJ-2L)		☐ MI-FW-QLDC		Formalin Lot #	☐ Formalin					
Periphyton (PT-50ML)		☐ ALGAE-ID				☐ Ice				
Microbiology (Contract Lab Bottle)		☐ E Coli ☐ F Coli ☐ Enterococci ☐ Contract Lab				☐ Ice				
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		MCAA Exp. Date 2/4/2023		
Pesticides (BG-500ML) (BG-1L)		☒ W-E8321-DI ☒ WE8321-MS		☒ W-PSNP-TQ	☒ W-CT-CL-R	☒ Ice		MCAA Lot# 128343	6	A
		☒ W-PCL-TQ-R ☒ W-CARB-AA (5 ml of MCAA** Buffer Solution)		☒ W-TR-SQ-R						
Phytoplankton/Periphyton		☒ W-PCB-TQ-R ☐ DTY-QN-C		☐ PKD-QN-BV		☐ Ice				
Name: Ben Paswater Devin Mathias				Signature: Ben Paswater				Date: 05/31/2022		

*2.0 ml of Preservative used unless noted otherwise.

**MCAA: Monochloroacetic acid buffer solution



RQ- 2022-05-30-09

Collected By: Ben Paswater, Devin Mathias

Customer: ~~WOAP~~ SW-Dist

Field Report Prepared By: Ben Paswater, Devin Mathias

Project ID: SMP

Sampling Agency: FDEP

BLANK



Field ID: FB 05312022

Comments:

Matrix: Field Blank

(Check one) ☐ COMPOSITE ☒ GRAB

Date

Time

DI Source: SWROC

5/31/2022

1230

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 ☒ H2SO4	☐ <2	1	A
	Lot # SA1308030 Exp: 12/01/2022				
Metals (P-500ML)	☒ W-ICPMS ☒ W-ICP	☒ Ice ☒ H2SO4	☒ <2	1	A
	Lot # NA1105100 Exp: 6/7/2022				
Filtered Nutrients (P125ML)	☒ W-PO4-F Filter ☒ Field Filtered 0.45 µm	☒ Ice		1	A
	Filter Lot # 1723873				
	Syringe Lot # 1145497				
Physical/Aggregate (Fresh) (P-1L)	☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-Cl-IC / W-COLOR / W-SO4-IC / W-IC / TDS	☒ Ice		1	A
Physical/Aggregate (Marine) (P-1L)	☐ Alkalinity / W-BR-IC / W-F / W-TSS / TURBIDITY	☐ Ice			
Tracers (BG-500ML)	☐ W-E8321-DI ☐ W-E8321-MS	☐ Ice	MCAA Exp. Date 2/4/2023		
Pesticides (BG-500ML) (BG-1L)	☒ W-E8321-DI ☒ WE8321-MS ☒ W-PSNP-TQ ☒ W-CT-CL-R	☒ Ice	MCAA Lot# 128343	10	A
	☒ W-PCL-TQ-R ☒ W-CARB-AA				
	☒ W-PCB-TQ-R ☐ W-TR-SQ-R (5 ml of MCAA** Buffer Solution)				
Name: Ben Paswater Devin Mathias		Signature:		Date: 05/31/2022	

*2.0 ml of Preservative used unless noted otherwise.

**MCAA: Monochloroacetic acid buffer solution



Site Name: Cato Lake South

COUNTY: _____

LAKE SIZE: _____

WBID: _____

MACROPHYTE ID: _____

WATERSHED / LAKESIDE FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category – from GIS) : Forest/Natural <u>50</u> Silviculture <u> </u> Field/Pasture <u>20</u> Agricultural <u> </u> Residential <u>30</u> Commercial <u> </u> Industrial <u> </u> Other (Specify) <u> </u>										LANDSCAPE DEVELOPMENT INTENSITY (100 m buffer) LDI: <u> </u>							
Local Watershed Erosion (select one) : ☐ None ☐ Slight ☐ Moderate ☐ Heavy										Artificially Impounded ☐ Yes ☐ No							
Local Watershed NPS Pollution : ☐ No evidence ☐ Slight ☐ Moderate ☐ Heavy										Land Use Source & Year:							
STORMWATER INPUTS <u>13</u>		Stormwater enters system via sheet flow over non-cultivated and/or natural vegetation				Some direct stormwater inputs (ditches, pipes, cultivated vegetation < 10%) but good BMPs in place				Moderate direct inputs of stormwater (ditches, pipes, cultivated vegetation 11%-50%) but few BMPs in place				Much direct input of stormwater (ditches, pipes, cultivated vegetation > 51%) and no or ineffective BMPs in place			
		20 19 18 17 16				15 14 13 12 11				10 9 8 7 6				5 4 3 2 1			
LAKESIDE ALTERATIONS <u>16</u>		Very few man-made structures, roads, or other disturbance adjacent to lake (<10% lakeside affected)				Moderate disturbance visible - structures, roads or other (10%-49% lakeside affected)				Many structures, roads or other human disturbance visible (50%-70% lakeside affected)				Highly developed or disturbed (>70% of lakeside affected)			
		20 19 18 17 16				15 14 13 12 11				10 9 8 7 6				5 4 3 2 1			
BUFFER ZONE <u>15</u>		Expected native vegetation between uplands and littoral zone, greater than 90% of shore with >18 m buffer				89%-51% of shoreline with >18m buffer or >75% with 10m to 18m buffer				50%-30% of shoreline with >18m buffer or 50%-74% with 10m to 18m buffer				< 29% of shoreline with >18m buffer			
		20 19 18 17 16				15 14 13 12 11				10 9 8 7 6				5 4 3 2 1			

WATER / SUBSTRATE / BIOLOGICAL: SAMPLES AND OBSERVATIONS

Water: Nutrient Sample Taken? ☒ Yes ☐ No Preserved? ☒ Yes ☒ pH<2 ☐ No Color Sample Taken? ☒ Yes ☐ No Lot # _____ Exp. Date: _____ Alkalinity Sample Taken? ☒ Yes ☐ No Water Level ☐ Low ☒ Normal ☐ High										Water Odors: ☒ Normal ☐ Sewage ☐ Petroleum ☐ Other _____									
Meter Readings: Top: Depth (M) <u>0.3</u> Temp. (°C) <u>22.8</u> pH (SU) <u>6.88</u> D.O. (MG/L) <u>1.8</u> D.O. Sat. (%) <u>22.8</u> Cond. (UMHO/CM) <u>363</u> Salinity (PPT) <u>.17</u> Mid-Depth: _____ Bottom: _____										Water Surface Oils: ☒ None ☐ Sheen/Slick ☐ Glob ☐ Other _____									
Meter ID: <u>SWD</u>										Clarity: ☐ Clear ☒ Slightly Turbid ☐ Opaque ☐ Turbid									
Sediment Type: (may check more than one) ☐ Sandy ☐ Organic fibrous (peaty, CPOM) ☒ Vegetated ☐ Sand/Silt ☐ Organic smooth (muck) ☐ Other (Specify): _____										Sediment Odors: ☒ Normal ☐ Anaerobic ☐ Other (Specify): _____									
Biological Communities: LVI Conducted? ☒ Yes ☐ No Phytoplankton Sample Taken? ☐ Yes ☒ No Sample Preserved? ☐ Yes ☐ No Lot #: _____ Exp Date: _____ Algal Bloom/Algal ID Sample Taken? Yes ☒ No ☐ Active Vegetation Mgmt? ☐ Yes ☐ No ☒ Don't Know										Abundance: Absent Rare Common Abundant Periphyton ☐ ☐ ☒ ☐ Nuisance Plants ☐ ☐ ☒ ☐ Submersed Plants ☐ ☐ ☐ ☒ Exotic Apple Snails ☒ ☐ ☐ ☐									
Weather Conditions: <u>hot Sunny ~ 90</u>										Additional Notes: <u>RQ-2022-05-32-09</u>									
SAMPLING TEAM: <u>Ben Paswater Devin Mathias</u>										SIGNATURE: <u>Ben Paswater</u> DATE: <u>5/31/2022</u>									



Site Name: Cato Lake South

Waterbody:

County: CRUS

Signature: *B. J. ...*

Date: 5/31/20

required. *Genera that may require lab verification*

Lake units sampled (circle one group):

1, 4, 7, 10, 2, 5, 8, 11, 3, 6, 9, 12

Plants in bold = FLEPPC invasive exotic.

It is important to note dominant or co-dominant taxa (by areal extent) for each unit. Use "D" to denote dominant taxon, or "C" for the 2 co-dominant taxa.

SPECIES (A-F)	1	4	7	10	Collected? (✓)	SPECIES (G-L)	1	4	7	10	Collected? (✓)
Acer rubrum						Gordonia lasianthus					
Alternanthera philoxeroides						Habenaria repens	✓			✓	
Andropogon sp.						Hymenachne amplexicaulis					
Azolla filiculoides (A. caroliniana)						Hydrilla verticillata					
Baccharis sp.						Hydrocotyle sp.	✓	✓	✓	✓	
Bacopa caroliniana						Hygrophila polysperma					
Bacopa monnieri						*Hypericum fasciculatum					
Bidens laevis						*Hypericum hypericoides					
Bidens mitis						*Hypericum myrtifolium					
Blechnum serrulatum						Ilex cassine					
Boehmeria cylindrica	✓			✓		Ipomoea aquatica					
Brasenia schreberi						Ipomoea sagittata					
Cabomba caroliniana						Itea virginica					✓
Casuarina equisetifolia						Juncus effusus	✓				✓
Centella asiatica						*Juncus marginatus	✓				✓
Cephalanthus occidentalis	✓	✓				*Juncus megacephalus	✓		✓		✓
Ceratophyllum demersum						Juncus repens					
Chara sp.						*Juncus scirpoides					
Cladium jamaicense		✓		✓		Lachnanthes caroliniana	✓	✓			✓
Cliftonia monophylla						Leersia hexandra					
Colocasia esculenta						Landoltia punctata (Spirodela punctata)					
*Commelina						Lemna sp.	✓	✓	✓	✓	
Crinum americanum						Leucothoe racemosa (Eubotrys racemosa)					
* Cyperus alternifolius (C. involucratus)						Limnobia spongia					
Cyperus articulatus						Limnophila sessiliflora					
Cyperus haspan	✓					Liquidambar styraciflua					
*Cyperus lecontei						*Ludwigia arcuata					
*Cyperus polystachyos						*Ludwigia leptocarpa					
*Cyperus odoratus	✓	✓		✓		*Ludwigia linearis					
*Cyperus surinamensis						*Ludwigia octovalvis	✓				
Cyrtilla racemiflora						* Ludwigia peruviana					
Decodon verticillatus						*Ludwigia repens					
Diodia virginiana						*Ludwigia	✓	✓	✓	✓	
*Echinochloa crus-galli						Luziola fluitans (Hydrochloa carolinensis)					
*Echinochloa muricatum	✓	✓				Lyonia lucida					
Echinochloa walteri	✓	✓		✓		Carex (B.g. one)	✓	✓	✓	✓	
Eclipta prostrata (E. alba)						Carex (smaller)	✓				
Egeria densa						for					
Eichhornia crassipes	✓	✓				Carex lupuliformis	✓	✓	✓	✓	
*Eleocharis baldwinii	✓	✓	✓	✓							
*Eleocharis	✓	✓									
Eleocharis cellulosa											
Eleocharis equisetoides											
Eleocharis interstincta											
*Eriocaulon compressum											
*Eriocaulon decangulare											
Eupatorium capillifolium	✓	✓	✓	✓							
*Fuirena <i>pumila</i>	✓										
Fuirena scirpoidea											

1: U. Florida and A. lutea co-dom

Date:

5/31/22