

**FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION**

STRATEGIC MONITORING PLAN FIELD SHEET

January 2022

Meter Passed End

of Day CCV

☒ Yes / No

WIN Station Name: Lake Crago @ Center

Date: 5/24/2022

WIN/Field ID: G3SW0112

WBID: 1497D1

ENR:

Latitude: 28.093848

County: POLK

Org ID: 21FLTPA

Longitude: -81.94739

Receiving Body of Water: Lake Parker

RQ- 2022-05-23-15

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: 84263 LVI: 12160											
Notes:											

Duplicate Sample

Time Zone: EST	Time:	Field ID: N/A	(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: SW-DIST-2022-05-25-01

WIN Import ID: 34198

Enter Field Parameters, Verify Station ID In LIMS DMT: MM 5/31/2022

QC Station ID, Field Parameters In LIMS DMT: KG 06/21/2022

(Initials/Date)

(Initials/Date)

Scan/Save Field Sheets

NA 08/08/2022

Migrate Data to WIN:

07/18/2022 SM

Verify Data In WIN:

07/18/2022 SM

(Initials/Date)

(Initials/Date)

(Initials/Date)



RQ-2022-05-23-15
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: G3SW0112 Location: Lake Crago @ Center						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)
5/24/2022	1430 EST	11.02	147.5	30.5	9.48	0.3	0.5 ☐ VOB (S)	3.1	198	0.09
	1430	8.78	113	28.53	9.08	2.0	Central Lab please use top row for login purposes		199	0.09
	1430 EST	6.59	83.5	28.3	8.56	2.6			198	0.09
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		
BOD (BP-1L)		☐ 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				
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.		
Pesticides (BG-500ML) (BG-1L)		☒ W-E8321-DI		☐ WE8321-MS		☒ W-PSNP-TQ		☒ W-CT-CL-R		2/4/2023
		☒ W-PCL-TQ-R		☒ W-CARB-AA (5 ml of MCAA** Buffer Solution)		☐ W-TR-SQ-R				MCAA Lot#
		☒ W-PCB-TQ-R								128343
Phytoplankton/Periphyton				DTY-QN-C		PKD-QN-C		☐ Ice		
Name: Ben Paswater Devin Mathias				Signature:					Date: 05/24/2022	

*2.0 ml of Preservative used unless noted otherwise.

**MCAA: Monochloroacetic acid buffer solution



Site Name: Lake Crago @ Center

COUNTY: Small PolkLAKE SIZE: Mid sizedWBID: 1497 D1

MACROPHYTE ID: _____

WATERSHED / LAKESIDE FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category – from GIS) :										LANDSCAPE DEVELOPMENT INTENSITY (100 m buffer)											
Forest/Natural	Silviculture	Field/Pasture	Agricultural	Residential	Commercial	Industrial	Other (Specify)	LDI: _____													
<u>25</u>		<u>50</u>			<u>25</u>			Land Use Source & Year: _____													
Local Watershed Erosion (select one): ☐ None ☒ Slight ☐ Moderate ☐ Heavy										Artificially Impounded ☒ Yes ☐ No											
Local Watershed NPS Pollution: ☐ No evidence ☒ Slight ☐ Moderate ☐ Heavy																					
STORMWATER INPUTS		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										
<u>8</u>		20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
LAKESIDE ALTERATIONS		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)										
<u>16</u>		20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
BUFFER ZONE		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										
<u>14</u>		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 ☐ No 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: <u>0.3</u> <u>30.5</u> <u>9.48</u> <u>11.02</u> <u>147.5</u> <u>198</u> <u>.09</u> Mid-Depth: <u>2.0</u> <u>28.53</u> <u>9.08</u> <u>8.78</u> <u>113</u> <u>199</u> <u>.09</u> Bottom: <u>2.6</u> <u>28.3</u> <u>8.56</u> <u>6.59</u> <u>83.5</u> <u>198</u> <u>.09</u> Meter ID: <u>SWD</u>										Water Surface Oils: ☒ None ☐ Sheen/Slick ☐ Glob ☐ Other _____									
Sediment Type: (may check more than one) ☒ Sandy ☐ Organic fibrous (peaty, CPOM) ☐ Vegetated ☐ Sand/Silt ☒ Organic smooth (muck) ☐ Other (Specify): _____										Clarity: ☐ Clear ☒ Turbid ☐ Slightly Turbid Color: ☐ Clear ☐ Tannic ☒ Green SECCHI (M) <u>0.5</u> Total Station Depth (M) <u>3.1</u> VOB ☐									
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>Sunny 90</u>										Additional Notes:									
SAMPLING TEAM: <u>Ben Paswater, Devin Mathis</u>										SIGNATURE: <u>Ben Paswater</u>									
DATE: <u>5/24/2022</u>																			



Site Name: Lake Crago @ Center

Waterbody:

County:

Signature:

Date:

Plants in bold = FLEPPC invasive exotic. *Genera that may require lab verification*

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.

Lake units sampled (circle one group):

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

SPECIES (A-F)	2	5	8	11	Collected? (✓)	SPECIES (G-L)	2	5	8	11	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)						Limnium 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											
Eclipta prostrata (E. alba)											
Egeria densa											
Eichhornia crassipes											
*Eleocharis baldwinii											
*Eleocharis	✓										
Eleocharis cellulosa											
Eleocharis equisetoides											
Eleocharis interstincta											
*Eriocaulon compressum											
*Eriocaulon decangulare											
Eupatorium capillifolium	✓		✓	✓							
*Fuirena											
Fuirena scirpoidea											

2: A. geminatum dom 11: A. geminatum dom 5: Typha, A. geminatum co-dom
8: Typha dom



Site Name:

Lake Crago @ Center

Date:

Date:		Site Name:		Lake Crago @ Center		Collec	Date:		Site Name:		Lake Crago @ Center		Collec
SPECIES (M-P)		2	5	8	11	(✓)	SPECIES (R-Z)		2	5	8	11	(✓)
Magnolia virginiana							*Rhexia						
Mayaca fluviatilis							*Rhynchospora corniculata						
Melaleuca quinquenervia							*Rhynchospora inundata						
Micranthemum glomeratum							Rhynchospora tracyi						
Micranthemum umbrosum							Ricciocarpus natans						
Mikania scandens		✓					Sabal palmetto		✓	✓	✓	✓	
Mimosa pigra							Sacciolepis striata						
Myrica cerifera		✓	✓	✓	✓		*Sagittaria filiformis						
Myriophyllum aquaticum							*Sagittaria graminea						
*Myriophyllum heterophyllum							*Sagittaria isoetiformis						
*Myriophyllum laxum							Sagittaria lancifolia		✓	✓	✓	✓	
*Myriophyllum pinnatum							Sagittaria latifolia		✓	✓	✓	✓	
Myriophyllum spicatum							Salix caroliniana		✓	✓	✓	✓	
*Najas filifolia							Salvinia minima		✓	✓	✓	✓	
*Najas guadalupensis							Sambucus canadensis						
*Najas minor							Sapium sebiferum		✓	✓	✓	✓	
Nelumbo lutea							Saururus cernuus						
Nitella spp.							Schinus terebinthifolius		✓	✓	✓	✓	
Nuphar sp.							*Schoenoplectus californicus (Cali bulrush)						
Nymphaea odorata							*Schoenoplectus pungens (three square)						
Nymphoides aquatica							*Schoenoplectus tabernaemontani (softstem)		✓				
Nyssa sylvatica var. biflora							Scirpus cubensis (Oxycaryon cubense)						
Orontium aquaticum							Scirpus cyperinus						
Osmunda cinnamomea							*Sesbania						
Osmunda regalis							Solidago sp.						
Panicum hemitomon							Sparganium americanum						
Panicum repens		✓	✓	✓	✓		Spartina bakeri						
Paspalidium geminatum		✓	✓	✓	✓		Sphagneticola trilobata (Wedelia)						
*Paspalum repens							Spirodela polyrhiza						
Paspalum urvillei							Taxodium sp.		✓	✓			✓
Peltandra sp.							Thalia geniculata						
Persea sp.			✓				Thelypteris palustris						✓
Pennisetum purpureum							Triadenum virginicum		✓	✓	✓	✓	
Phragmites australis		✓					Typha sp.		✓	✓	✓	✓	
Pinus elliotii		✓			✓		Urochloa mutica (Brachiaria mutica)		✓	✓	✓	✓	
Pistia stratioides				✓			*Utricularia gibba (U. biflora)						
Pluchea sp.			✓	✓			*Utricularia floridana						
*Polygonum glabrum (densiflorum)		✓	✓	✓			*Utricularia foliosa						
*Polygonum hydropiperoides							*Utricularia inflata						
*Polygonum punctatum							*Utricularia purpurea						
*Polygonum sp.							*Utricularia cornuta						
Pontederia cordata			✓	✓			*Utricularia radiata						
*Potamogeton diversifolius							Vallisneria americana				✓		
*Potamogeton illinoensis							*Websteria confervoides						
*Potamogeton pusillus							Wolffiella spp.						
*Potamogeton pectinatus							Woodwardia virginica						
Proserpinaca pectinata							Xyris sp.						
							Zizania aquatica						
							Zizaniopsis milacea						

Lake Crago

LM Map

Legend

- 1497D1
- Feature 1
- Feature 2
- Feature 3
- Feature 4
- Lake Crago
- Lakeland
- Line Measure
- Starbucks

Field ID/WIN

G3SW0112



Site Name:

Lake Crago @ Center

Google Earth

Liberty Outdoors Kayaks - Lakeland

