

**FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION**

STRATEGIC MONITORING PLAN Field Sheet

July 2022

Meter
Passed End
of Day CCV
Yes / No

WIN Station Name:		Lakes Park @ Center				Sample Date:		8/17/2022	
WIN / Field ID:	G1SD0115	ORG ID:	21FLFTM	ENR:		Latitude:	26.52659		
County:	Lee	WBID:	3258X	LAKE	3F	Longitude:	-81.880348		
Receiving Body of Water:						-	RQ-	2022-08-15-55	

Sampling Team Members	WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
William Mullen	x		x		
John Barrington		x		x	x

Sampling Equipment			
x	Sample Container	Carboy	
	Dipper	Van Dorn	
	Syringe	Pole	
Syringe Lot# 1363442		Filter Lot# 17232873	
Secchi Equipment ID:		Slippery Disk	
Collection Method			
	Wading		Canoe/Kayak
	From Shore	x	Electric Motor
			Gasoline Motor
Depth Measured With Secchi			

Water Level:	Normal
Flow:	NA
Matrix:	Fresh
Tide Stage:	
High Tide:	
Low Tide:	
Photos:	Yes
Meter ID:	The One

Time Zone	Time	Total Depth (m)	Sample Depth (m)	DO (mg/L)	DO (%SAT)	Temp. (°C)	pH	Secchi Disk (m)	Sp COND (µmhos/cm)	Salinity (PPT _h)
EST	1025	2	0.3	6.33	84.3	30.2	7.87	0.3	664	0.32
	1030		1.5	4.95	65.3	30.1	7.74		664	0.32

Biological Samples Collected: None**SBIO Visit ID:** **HA ID:** **RPS ID:** **Macrophyte ID:** **LIMS Sample ID Entered Into The Macrophyte Module:**

Parameter Suite	Parameter Methods (LIMS Test Codes)			Preservation								
				Type	Lot#	Expiration Date	pH Check					
Microbiology												
Chlorophyll	CHLSUITE-W			ICE								
Physical/Aggregate Nutrients	ALKALINITY, TURBIDITY, W-F, W-TSS			ICE								
	W-CL-IC, W-COLOR, W-SO4-IC, W-TDS			ICE								
Filtered Nutrients	W-PO4-F	Field Filtered 0.45 µm Filter		ICE								
Acid Preserved Nutrients	W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP			ICE	H2SO4*	SA1803080	12/22/22	H2SO4 pH<2				
Metals	W-ICPMS	W-ICP	W-HARD	ICE	HNO3**	NA1105100	06/07/23	HNO3 pH<2				
Organics (LC)	W-E8321-DI	W-E8321-MS		Ice								
Macroinvertebrates												
Organics (GC)	W-PSNP-TQ	W-TR-SQ-R		Ice	*2.0 ml of H2SO4 Used Unless Noted Otherwise **2.0 ml of HNO3 Used Unless Noted Otherwise							
Molecular												
Periphyton												
Phytoplankton												
BOD												
Other(s)												
Field Comments:												
Comments on COC:												
Relinquish Date:	08/17/2022	Signature:										

LIMS EVENT ID: _____ WIN Import ID: _____
Enter Field Parameters, Verify Station ID In LIMS DMT: _____ QC Station ID, Field Parameters In LIMS DMT: _____
(Initials/Date) (Initials/Date)
Save Field Sheets on Network: _____ Migrate Data to WIN: _____
(Initials/Date) (Initials/Date)

DEP FORM FD 9000-27 LAKE VEGETATION INDEX FIELD SHEET

Waterbody: Lakes Park @ Center					County: Lee					Date: 08/17/2022				
Analyst: William Mullen , John Barrington					Signature: <i>William Mullen</i>					STORET: G1SD0115				
Except where noted as "sp." species level identification required. *Genera that may require lab verification* Plants in bold= FLEPPC invasive exotic.										Lake units sampled (circle one group): 1, 4, 7, 10 2, 5, 8, 11 3, 6, 9, 12				
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	1	4	7	10	Collected? (✓)	SPECIES	1	4	7	10	Collected? (✓)			
Acer rubrum		x				Habenaria repens								
Alternanthera philoxeroides	x					Hydrilla verticillata	x							
Andropogon sp.	x	x	x	x		Hydrocotyle sp.	x	x	x	x				
Azolla filiculoides (A. caroliniana)						Hygrophila polysperma								
Baccharis sp.				x		*Hypericum fasciculatum								
Bacopa caroliniana						*Hypericum hypericoides								
Bacopa monnieri		x	x			*Hypericum myrtifolium								
Bidens laevis						Ilex cassine								
Bidens mitis						Ipomoea aquatica								
Blechnum serrulatum						Ipomoea sagittata								
Boehmeria cylindrica						Itea virginica								
Brasenia schreberi						Juncus effusus								
Cabomba caroliniana						*Juncus marginatus								
Casuarina equisetifolia	x	x	x	x		*Juncus megacephalus								
						Juncus repens								
Cephalanthus occidentalis						*Juncus scirpoides								
Ceratophyllum demersum						Lachnanthes caroliniana								
Chara sp.						Leersia hexandra								
Cladium jamaicense	x					Landoltia punctata (Spirodela punctata)								
						Lemna sp.								
Colocasia esculenta						Leucothoe racemosa (Eubotrys racemosa)								
*Commelina						Limnobia spongia								
Crinum americanum		x				Limnophila sessiliflora								
*Cyperus alternifolius (C. involucratus)						Liquidambar styraciflua								
Cyperus articulatus						*Ludwigia arcuata								
Cyperus haspan						*Ludwigia leptocarpa		x						
*Cyperus lecontei						*Ludwigia linearis								
*Cyperus polystachyos			x	x		*Ludwigia octovalvis	x	x	x	x				
*Cyperus odoratus	x	x	x			*Ludwigia peruviana			x					
*Cyperus surinamensis						*Ludwigia repens								
						*Ludwigia								
Decodon verticillatus						Luziola fluitans (Hydrochloa carolinensis)								
Diodia virginiana						Lyonia lucida								
*Echinochloa crus-galli						Magnolia virginiana								
*Echinochloa muricatum						Mayaca fluviatilis								
Echinochloa walteri						Melaleuca quinquenervia	x	x	x	x				
Eclipta prostrata (E. alba)						Micranthemum glomeratum								
Egeria densa						Micranthemum umbrosum								
Eichhornia crassipes						Mikania scandens	x	x	x	x				
*Eleocharis baldwinii						Mimosa pigra								
*Eleocharis						Myrica cerifera	x		x	x				
Eleocharis cellulosa	x	x	x	x										
Eleocharis equisetoides														
Eleocharis interstincta			x	x		Annona glabra	x	x		x				
*Eriocaulon compressum						Acacia auriculiformis	x			x				
*Eriocaulon decangulare						Phyla nodiflora		x	x					
Eupatorium capillifolium			x											
*Fuirena panila			x											
Fuirena scirpoidea														
Gordonia lasianthus	x													

FORM FD 9000-27: LAKE VEGETATION INDEX FIELD SHEET

Site:						Date:					
SPECIES	1	4	7	10	Collected? (√)	SPECIES	1	4	7	10	Collected? (√)
Myriophyllum aquaticum						Salix caroliniana	x		x		
*Myriophyllum heterophyllum						Salvinia minima					
*Myriophyllum laxum						Sambucus canadensis					
*Myriophyllum pinnatum						Sapium sebiferum					
Myriophyllum spicatum						Saururus cernuus					
*Najas filifolia						Schinus terebinthifolius	x	x	x	x	
*Najas guadalupensis		x				*Schoenoplectus californicus	x		x	x	
*Najas minor											
Nelumbo lutea						*Schoenoplectus tabernaemontani (Scirpus validus)					
Nitella spp.						Scirpus cubensis (Oxycaryon cubense)					
Nuphar sp.	x	x	x	x		Scirpus cyperinus					
Nymphaea odorata						*Sesbania					
Nymphoides aquatica						Solidago sp.					
Nyssa sylvatica var. biflora						Sparganium americanum					
Orontium aquaticum						Spartina bakeri		x			
Osmunda cinnamomea						Spirodela polyrhiza					
Osmunda regalis						Taxodium sp.		x	x		
Panicum hemitomom						Thalia geniculata	x	x			
Panicum repens	x	x	x	x		Thelypteris palustris					
Paspalidium geminatum	x	x	x	x		Triadenum virginicum					
*Paspalum repens						Typha sp.	x	x	x	x	
						Urochloa mutica (Brachiaria mutica)					
Peltandra sp.						*Utricularia gibba (U. biflora)					
Persea sp.						*Utricularia floridana					
Pennisetum purpureum						*Utricularia foliosa	x				
Phragmites australis		x	x	x		*Utricularia inflata					
Pinus elliotii						*Utricularia purpurea					
Pistia stratioides						*Utricularia cornuta					
Pluchea sp.	x	x	x			*Utricularia radiata					
*Polygonum glabrum (densiflorum)						Vallisneria americana					
*Polygonum hydropiperoides						*Websteria confervoides					
*Polygonum punctatum						Wedelia trilobata (Sphagneticola trilobata)	x		x		
*Polygonum						Wolffiella spp.					
Pontederia cordata	x					Woodwardia virginica					
*Potamogeton diversifolius						Xyris sp.					
*Potamogeton illinoensis						Zizania aquatica					
*Potamogeton pusillus						Zizaniopsis milacea					
*Potamogeton pectinatus (Stuckenia pectinatus)											
						Yucca spp.		x			
*Rhexia						Serenia repens			x	x	
*Rhynchospora corniculata						Bidens Alba			x		
*Rhynchospora inundata											
Rhynchospora tracyi											
Sabal palmetto											
Sacciolepis striata											
*Sagittaria filiformis											
*Sagittaria graminea		x	x	x							
*Sagittaria isoetiformis											
Sagittaria lancifolia	x										
Sagittaria latifolia											

DEP FORM FD 9000-31: LAKE OBSERVATION FIELD SHEET

SAMPLE RQ: 2022-08-15-55 MACROPHYTE ID: 12256 LATITUDE: 26.526588
 COUNTY: Lee WIN #: G3SD0115 LONGITUDE: -81.880348
 DATE: 08/17/2022 TIME: SAMPLING AGENCY: FDEP - SOROC
 WATERBODY NAME: Lakes Park @ Center WBID: 3258X
 RANDOM SITE ID: LAKE SIZE (CIRCLE ONE): LARGE / **SMALL**

WATERSHED / LAKESIDE FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category – from GIS) : Forest/Natural 25% Silviculture Field/Pasture Agricultural Residential 75% Commercial Industrial Other (Specify)					LANDSCAPE DEVELOPMENT INTENSITY (100 m buffer) LDI: 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 11		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 4		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 4		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 ☐ No pH<2 ☐ No Color Sample Taken? ☒ Yes ☐ No Lot # SA1803080 Exp. Date: 12/22/22 Alkalinity Sample Taken? ☒ Yes ☐ No Water Level ☐ Low ☒ Normal ☐ High								Water Odors: ☒ Normal ☐ Sewage ☐ Petroleum ☐ Other _____															
								Water Surface Oils: ☒ None ☐ Sheen/Slick ☐ Glob ☐ Other _____															
Meter Readings: Top:		Depth (M)		Temp. (°C)		pH (SU)		D.O. (MG/L)		D.O. Sat. (%)		Cond. (UMHO/CM)		Salinity (PPT)		Clarity: ☐ Clear ☒ Turbid ☐ Opaque ☐ Slightly Turbid		Color: ☐ Clear ☒ Green ☐ Tannic					
Mid-Depth:																							
Bottom:		1.5		30.1		7.74		4.95		65.3		664		0.32		SECCHI (M) 0.3		Total Station Depth (M) 2.0					
Meter ID:		The One																					
Sediment Type: (may check more than one) ☒ Sandy ☐ Organic fibrous (peaty, CPOM) ☐ Vegetated ☐ Sand/Silt ☐ Organic smooth (muck) ☐ Other (Specify): _____								Sample Taken? ☐ Yes ☒ No								Sediment Odors: ☐ Normal ☐ Other (Specify): _____ ☒ Anaerobic							
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 ☐ ☐ ☒ ☐								Additional Notes:							
Weather Conditions : partly cloudy and breezy																							
SAMPLING TEAM: William Mullen John Barrington										SIGNATURE: William Mullen					DATE: 08/17/2022								