



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

STRATEGIC MONITORING PLAN Field Sheet

July 2022

Meter
Passed End
of Day CCV

☒ Yes / ☐ No

WIN Station Name:		MIRROR LAKE AT CENTER				Sample Date:		8/2/2023	
WIN / Field ID:	G2CE0279	ORG ID:	21FLCEN	ENR:	-	Latitude:	28.666614		
County:	SEMINOLE	WBID:	3000C	LAKE		Longitude:	-81.439511		
Receiving Body of Water:						-	RQ-	2023-07-31-09	

Sampling Team Members	WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
Katie March		x		x	x
Jessie Atchison	x		x		

Sampling Equipment			
☒ Sample Container		Carboy	
Dipper		Van Dorn	
☒ Syringe		Pole	
Syringe Lot#	2327923	Filter Lot#	17769663
Secchi Equipment ID:		Knothead	
Collection Method			
Wading		Canoe/Kayak	
From Shore		☒ 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:	Craw Daddy
Depth Gauge ID:	depth_gauge

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 (PPTth)
EST	1155	5.2	0.3	5.66	76.6	31.3	6.76	3.5	214	0.1
	1202		2	3.74	51.2	30.8	6.76		214.2	0.1
	1205		4.7	0.34	4.3	29.8	6.61		225.6	0.1

Biological Samples Collected:		None								
SBIO Visit ID:	87697	HA ID:		RPS ID:		Macrophyte ID:	12536	LIMS Sample ID	2428377	
In The Macrophyte Module:										

Parameter Suite	Parameter Methods (LIMS Test Codes)			Preservation					
				Type	Lot#	Expiration Date	pH Check		
Microbiology									
Chlorophyll	CHLSUITE-W			ICE					
Physical/Aggregate	ALKALINITY, TURBIDITY, W-F, W-TSS			ICE					
Nutrients	W-CL-IC, W-COLOR, W-SO4-IC, W-TDS			ICE					
Filtered Nutrients	W-PO4-F	Field Filtered 0.45 µm Filter		ICE	Syringe Lot#:2327923 ; Filter Lot#:17769663				
Acid Preserved Nutrients	W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP			ICE	H2SO4*	SA3013020	01/25/2024	H2SO4 pH<2	
Metals	W-ICPMS	W-ICP	W-HARD	ICE	HNO3**	NA2230040	09/01/2023	HNO3 pH<2	
Organics (LC)	W-E8321-DI	W-E8321-MS			MCAA***				
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									
DOC									
Other(s)									
Field Comments:	80 and cloudy								
Comments on COC:									
Relinquish Date:	08/02/2023	Signature:							

LIMS EVENT ID: CEN-DIST-2023-08-03-01

WIN Import ID: 42536

Enter Field Parameters, Verify Station ID In LIMS DMT: KWM 8/25/23

QC Station ID, Field Parameters In LIMS DMT: VLS 9/6/23

KWM 9/8/23 (Initials/Date)

(Initials/Date)

Save Field Sheets on Network: (Initials/Date)

Migrate Data to WIN: KWM 9/8/23 (Initials/Date)

DEP FORM FD 9000-31: LAKE OBSERVATION FIELD SHEET

SAMPLE ID: _____ MACROPHYTE ID: _____ LATITUDE: 28.666614
COUNTY: Seminole STORET #: 6260279 LONGITUDE: -81.439511
DATE: 8/2/23 TIME: 11:55 SAMPLING AGENCY: F DEP
SITE NAME: Mirror Lake WBID: 3000C
FIELD ID/NAME: Mirror Lake @ Center LAKE SIZE: _____ RQ: 2023-07-31-09

WATERSHED / LAKESIDE FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category – from GIS) : <u>highway</u> Forest/Natural ☐ Silviculture ☐ Field/Pasture ☐ Agricultural ☐ Residential ☒ Commercial ☐ Industrial ☐ Other (Specify) ☒					LANDSCAPE DEVELOPMENT INTENSITY (100 m buffer) LDI:																
Local Watershed Erosion (select one) : ☐ None ☒ Slight ☐ Moderate ☐ Heavy					Artificially Impounded ☐ Yes ☒ No					Land Use Source & Year:											
Local Watershed NPS Pollution : ☒ No evidence ☐ Slight ☒ Moderate ☐ Heavy																					
STORMWATER INPUTS <u>6</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>5</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>8</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 ☐ 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: Depth (M) Temp (°C) pH (SU) D.O. (MG/L) D.O. Sat. (%) Cond. (UMHO/CM) Salinity (PPT) Top: <u>0.3</u> <u>31.3</u> <u>6.76</u> <u>5.66</u> <u>70.6</u> <u>214</u> <u>0.1</u> Mid-Depth: <u>2.0</u> <u>30.8</u> <u>6.76</u> <u>3.74</u> <u>51.2</u> <u>214.2</u> <u>0.1</u> Bottom: <u>4.7</u> <u>29.8</u> <u>6.61</u> <u>0.34</u> <u>4.3</u> <u>225.6</u> <u>0.1</u>						Water Surface Oils: ☒ None ☐ Sheen/Slick ☐ Glob ☐ Other _____											
Clarity: ☒ Clear ☐ Opaque ☐ Turbid ☐ Slightly Turbid						Color: ☒ Clear ☐ Tannic ☐ Green											
SECCHI (M) <u>3.5</u>						Total Station Depth (M) <u>5.2</u>											
VOB ☐																	
Sediment Type: (may check more than one) ☒ Sandy ☒ Organic fibrous (peaty, CPOM) ☒ Vegetated ☐ Sand/Silt ☐ Organic smooth (muck) ☐ Other (Specify): _____						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: <u>Typha & S. cubensis sprayed. Good diversity.</u>					
Weather Conditions: <u>80 & cloudy</u>																	
SAMPLING TEAM: <u>Jessie Atchison & Katie March</u>						SIGNATURE: <u>Jessie Atchison</u>			DATE: <u>8/2/23</u>								

DEP FORM FD 9000-27 LAKE VEGETATION INDEX FIELD SHEET

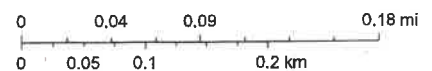
Waterbody: <u>Mirror Lake</u>	County: <u>Seminole</u>	Date: <u>8/2/23</u>	
Analyst: <u>JA SKM</u>	Signature: <u>Rossie Allen</u>	STORET: <u>G2CE0279</u>	
Except where noted as "sp." species level identification required. *Genera that may require lab verification* Plants in bold= FLEPPC invasive exotic. 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.		Lake units sampled (circle one group): 1, 4, 7, 10 2, 5, 8, 11 3, 6, 9, 12	
SPECIES	25811 Collected? (✓)	SPECIES	25811 Collected? (✓)
Acer rubrum		Habenaria repens	
Alternanthera philoxeroides		Hydrilla verticillata	
Andropogon sp.		Hydrocotyle sp.	
Azolla filiculoides (A. caroliniana)		Hygrophila polysperma	
Baccharis sp.		*Hypericum fasciculatum	
Bacopa caroliniana		*Hypericum hypericoides	
Bacopa monnieri		*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		*Juncus megacephalus	
Centella asiatica		Juncus repens	
Cephalanthus occidentalis		*Juncus scirpoides	
Ceratophyllum demersum		Lachnanthes caroliniana	
Chara sp.		Leersia hexandra	
Cladium jamaicense		Landoltia punctata (Spirodela punctata)	
Cliftonia monophylla		Lemna sp.	
Colocasia esculenta		Leucothoe racemosa (Eubotrys racemosa)	
*Commelina		Limnium spongia	
Crinum americanum		Limnophila sessiliflora	
*Cyperus alternifolius (C. involucratus)		Liquidambar styraciflua	
Cyperus articulatus		*Ludwigia arcuata	
Cyperus haspan		*Ludwigia leptocarpa	
*Cyperus lecontei		*Ludwigia linearis	
*Cyperus polystachyos		*Ludwigia octovalvis	
*Cyperus odoratus		*Ludwigia peruviana	
*Cyperus surinamensis		*Ludwigia repens	
Cyrtilla racemiflora		*Ludwigia	
Decodon verticillatus		Luziola fluitans (Hydrochloa carolinensis)	
Diodia virginiana		Lyonia lucida	
*Echinochloa crus-galli		Magnolia virginiana	
*Echinochloa muricatum		Mayaca fluviatilis	
Echinochloa walteri		Melaleuca quinquenervia	
Eclipta prostrata (E. alba)		Micranthemum glomeratum	
Egeria densa		Micranthemum umbrosum	
Eichhornia crassipes		Mikania scandens	
*Eleocharis baldwinii		Mimosa pigra	
*Eleocharis		Myrica cerifera	
Eleocharis cellulosa		Ludwigia decurrens	
Eleocharis equisetoides		erecta -km	
Eleocharis interstincta			
*Eriocaulon compressum			
*Eriocaulon decangulare			
Eupatorium capillifolium			
*Fuirena			
Fuirena scirpoidea			
Gordonia lasianthus			

Site: Mirror Lake					Date: 8/2/23						
SPECIES	2	5	8	11	Collected? (✓)	SPECIES	2	5	8	11	Collected? (✓)
Myriophyllum aquaticum						Salix caroliniana					
*Myriophyllum heterophyllum						Salvinia minima					
*Myriophyllum laxum						Sambucus canadensis					
*Myriophyllum pinnatum						Sapium sebiferum	/			/	
Myriophyllum spicatum						Saururus cernuus					
*Najas filifolia						Schinus terebinthifolius					/
*Najas guadalupensis						*Schoenoplectus californicus					
*Najas minor						*Schoenoplectus pungens					
Nelumbo lutea						*Schoenoplectus tabernaemontani (Scirpus validus)					
Nitella spp.	/			/		Scirpus cubensis (Oxycaryon cubense)	/				
Nuphar sp.	/			/		Scirpus cyperinus					
Nymphaea odorata	/	/	/	/		*Sesbania					
Nymphoides aquatica	/	/	/	/		Solidago sp.					
Nyssa sylvatica var. biflora	/					Sparganium americanum					
Orontium aquaticum						Spartina bakeri					
Osmunda cinnamomea						Spirodela polyrhiza					
Osmunda regalis						Taxodium sp.	/	/	/	/	
Panicum hemitomon	/					Thalia geniculata	/	/	/	/	
Panicum repens	/	/	/	/		Thelypteris palustris					
Paspalidium geminatum						Triadenum virginicum					
*Paspalum repens						Typha sp.	/			/	
Paspalum urvillei						Urochloa mutica (Brachiaria mutica)					
Peltandra sp.	/					*Utricularia gibba (U. biflora)	/	/	/	/	
Persea sp. P	/					*Utricularia floridana					
Pennisetum purpureum						*Utricularia foliosa	/	/	/	/	
Phragmites australis	/	/	/	/		*Utricularia inflata	/	/	/	/	
Pinus elliotii	/	/	/	/		*Utricularia purpurea	/	/	/	/	
Pistia stratioides						*Utricularia cornuta					
Pluchea sp.						*Utricularia radiata					
*Polygonum glabrum (densiflorum)						Vallisneria americana	/	/	/	/	
*Polygonum hydropiperoides						*Websteria confervoides					
*Polygonum punctatum						Wedelia trilobata (Sphagneticola trilobata)	/			/	
*Polygonum						Wolffiella spp.					
Pontederia cordata	/	/	/	/		Woodwardia virginica					
*Potamogeton diversifolius						Xyris sp.					
*Potamogeton illinoensis						Zizania aquatica					
*Potamogeton pusillus						Zizaniopsis milacea					
*Potamogeton pectinatus (Stuckenia pectinatus)						Rhexia					
Proserpinaca pectinata											
*Rhexia	/										
*Rhynchospora corniculata											
*Rhynchospora inundata											
Rhynchospora tracyi											
Ricciocarpus natans											
Sabal palmetto	/	/	/	/							
Sacciolepis striata											
*Sagittaria filiformis											
*Sagittaria graminea											
*Sagittaria isoetiformis					</						

LVI Map for WBID 3000C, Mirror Lake



1:4,514



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