

**FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION**

STRATEGIC MONITORING PLAN Field Sheet

July 2022

DO did not pass CCV

Meter
Passed End
of Day CCVYes / **No**

WIN Station Name:		Lake Douglas @ Center				Sample Date:		7/18/2022	
WIN / Field ID:	G2CE0210	ORG ID:	21FLCEN	ENR:	-	Latitude:	28.58231		
County:	Orange	WBID:	3017A2	LAKE		Longitude:	-81.25526		
Receiving Body of Water:						-	RQ-	2022-07-18-26	

Sampling Team Members	WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
Katie March		x		x	x
Victoria Schwartz	x		x		

Sampling Equipment			
x	Sample Container	Carboy	
	Dipper	Van Dorn	
x	Syringe	Pole	
Syringe Lot# 1335260		Filter Lot# 17413308	
Secchi Equipment ID:		Light	
Collection Method			
	Wading	x	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:	Shrimp Trap

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	1057	3.9	0.3	4.11	54.8	30.4	6.7	1.8	140.7	0.06
	1102		2	2.06	27.2	29.7	6.45		142	0.07
	1105		3.4	0.28	3.5	26.9	6.18		169	0.08

Biological Samples Collected:

LVI

SBIO Visit ID: 85160

HA ID:

RPS ID:

Macrophyte ID: 12250

LIMS ID:

2342174

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*	132683	12/18/22	H2SO4 pH<2				
Metals	W-ICPMS	W-ICP	W-HARD	ICE	HNO3**	NA1286110	11/16/22	HNO3 pH<2				
Organics (LC)	W-E8321-DI	W-E8321-MS										
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:	Sunny DO did not pass CCV											
Comments on COC:												
Relinquish Date:	07/18/2022	Signature:										

LIMS EVENT ID: CEN-DIST-2022-07-19-01

WIN Import ID: 35386

Enter Field Parameters, Verify Station ID in LIMS DMT: EB 8/11/22

QC Station ID, Field Parameters in LIMS DMT: KWM 8/16/22

Save Field Sheets on Network: KWM 9/9/22 (Initials/Date)

Migrate Data to WIN: KWM 9/9/22 (Initials/Date)

(Initials/Date)

(Initials/Date)

DEP FORM FD 9000-31: LAKE OBSERVATION FIELD SHEET

SAMPLE ID: _____ **MACROPHYTE ID:** _____ **LATITUDE:** 28.58231
COUNTY: Orange **STORET #:** G2CE0210 **LONGITUDE:** -81.25526
DATE: 7/18/22 **TIME:** _____ **SAMPLING AGENCY:** 21FLCEN
SITE NAME: Lake Douglas @ Center **WBID:** 3017A2
FIELD ID/NAME: G2CE0210 **LAKE SIZE:** _____ **RQ:** 2022-07-18-26

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: _____	
				100						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>10</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>7</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>7</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 # <u>132683</u> Exp. Date: <u>12/18/22</u> Alkalinity Sample Taken? ☒ Yes ☐ No Water Level ☐ Low ☒ Normal ☐ High						Water Odors: ☒ Normal ☐ Sewage ☐ Petroleum ☐ Other _____					
Meter Readings: Top: <u>0.3</u> <u>30.4</u> <u>6.7</u> <u>4.1</u> <u>54.8</u> <u>140.7</u> <u>0.06</u> Mid-Depth: <u>2.0</u> <u>29.7</u> <u>6.45</u> <u>2.06</u> <u>27.2</u> <u>142</u> <u>0.07</u> Bottom: <u>3.4</u> <u>26.9</u> <u>6.18</u> <u>0.28</u> <u>3.5</u> <u>169</u> <u>0.08</u>						Water Surface Oils: ☒ None ☐ Sheen/Slick ☐ Glob ☐ Other _____					
Meter ID: <u>Shrimp Trap</u>						Clarity: ☒ Clear ☐ Opaque ☐ Turbid ☐ Slightly Turbid Color: ☐ Clear ☒ Tannic ☐ Green					
Sediment Type: (may check more than one) ☐ Sandy ☒ Organic fibrous (peaty, CPOM) ☐ Vegetated ☐ Sand/Silt ☐ Organic smooth (muck) ☐ Other (Specify): _____						SECCHI (M) <u>1.8</u> Total Station Depth (M) <u>3.9</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</u>						Additional Notes: <u>Lake surrounded by houses but there is a settling pond (good BMP) and lots of aquatic plants</u>					
SAMPLING TEAM: <u>Katie March / Victoria Schuch</u>						SIGNATURE: <u>Katie March / Victoria Schuch</u> DATE: <u>7/18/22</u>					

DEP FORM FD 9000-27 LAKE VEGETATION INDEX FIELD SHEET

Waterbody: <u>Lake Douglas</u>		County: <u>Orange</u>		Date: <u>7/18/22</u>							
Analyst: <u>Katie Mann / Victoria Schwartz</u>		Signature: <u>Katie Mann / Victoria Schwartz</u>		STORET: <u>G2CE0210</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 <u>2, 5, 8, 11</u> 3, 6, 9, 12							
SPECIES	2	5	8	11	Collected? (✓)	SPECIES	2	5	8	11	Collected? (✓)
Acer rubrum	/	/	/	/		Fuirena scirpoides					
Alternanthera philoxeroides	/	/	/	/		Gordonia lasianthus					
Amaranthus australis						Habenaria repens					
Andropogon sp.						Hibiscus coccineus					
Azolla filiculoides (A. caroliniana)						Hibiscus grandiflora					
Baccharis sp.						Hydrilla verticillata					
Bacopa caroliniana						Hydrocotyle sp.	/	/	/	/	
Bacopa monnieri						Hygrophila polysperma					
Bidens alba						Hymenocallis sp.					
Bidens laevis						*Hypericum fasciculatum					
Bidens mitis						*Hypericum hypericoides					
Blechnum serrulatum						*Hypericum myrtifolium					
Boehmeria cylindrica						Ilex cassine	/	/	/	/	
Brasenia schreberi						Ipomoea aquatica					
Cabomba caroliniana						Ipomoea sagittata					
Canna						Itea virginica					
Centella asiatica						Juncus effusus					
Cephalanthus occidentalis	/	/	/	/		*Juncus marginatus					
Ceratophyllum demersum						*Juncus megacephalus					
Chara sp.						Juncus repens					
Cladium jamaicense						*Juncus scirpoides					
Colocasia esculenta	/	/	/	/		Lachnanthes caroliniana					
*Commelina						Leersia hexandra					
Crinum americanum						Landoltia punctata (Spirodela punctata)					
*Cyperus alternifolius (C. involucratus)						Lemna sp.					
Cyperus articulatus						Leucothoe racemosa (Eubotrys racemosa)					
Cyperus haspan						Limnobia spongia					
*Cyperus lecontei						Limnophila sessiliflora		/	/	/	
*Cyperus polystachyos						Liquidambar styraciflua					
*Cyperus odoratus						*Ludwigia arcuata					
*Cyperus surinamensis						*Ludwigia grandiflora					
Cyrtilla racemiflora						*Ludwigia hexapetala					
Decodon verticillatus						*Ludwigia leptocarpa					
Diodia virginiana						Ludwigia (native)					
*Echinochloa crus-galli						*Ludwigia octovalvis					
*Echinochloa muricatum						*Ludwigia peruviana	/	/	/	/	
Echinochloa walteri						*Ludwigia repens	/	/	/	/	
Eclipta prostrata (E. alba)	/	/	/	/		Ludwigia suffruticosa					
Eichhornia crassipes						Luziola fluitans (Hydrochloa carolinensis)					
*Eleocharis						Magnolia virginiana	/	/	/	/	
Eleocharis cellulosa						Mayaca fluviatilis					
*Eleocharis elongata						Melaleuca quinquenervia					
Eleocharis equisetoides						Micranthemum glomeratum					
Eleocharis interstincta						Micranthemum umbrosum					
Eleocharis submersed viviparous	/	/	/	/		Mikania scandens	/	/	/	/	
*Eriocaulon compressum						Mimosa pigra	/	/	/	/	
*Eriocaulon decangulare						Myrica cerifera	/	/	/	/	
Eupatorium capillifolium	/	/	/	/							
Fraxinus	/	/	/	/							

FORM FD 9000-27: LAKE VEGETATION INDEX FIELD SHEET

Site: Lake Douglas					Date: 7/18/22						
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	km				
Nymphaea mexicana						*Sesbania					
Nymphaea odorata	/	/	/	/		Solidago sp.					
Nymphoides aquatica						Sparganium americanum					
Nyssa sylvatica var. biflora						Spartina bakeri					
Orontium aquaticum						Spirodela polyrhiza					
Osmunda cinnamomea						Taxodium sp.	/				
Osmunda regalis						Thalia geniculata	/				
Panicum hemitomon						Thelypteris interrupta					
Panicum repens	/	/	/			Thelypteris palustris					
Paspalidium geminatum						Triadenum virginicum					
*Paspalum repens						Typha sp.	/	/	/	/	
Paspalum urvillei						Urochloa mutica (Brachiaria mutica)					
Peltandra sp.						*Utricularia foliosa	/	/	/	/	
Persea sp.						*Utricularia gibba (U. biflora)	/	/	/	/	
Pennisetum purpureum						*Utricularia inflata					
Phragmites australis						*Utricularia purpurea					
Pinus elliotii						*Utricularia radiata					
Pistia stratioides						*Utricularia resupinata					
Pluchea sp.						Vallisneria americana					
*Polygonum glabrum (densiflorum)						Vigna luteola					
Polygonum hirsutum						Vitis sp.					
*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)						Ruellia simplex	/				
Proserpinaca pectinata						Polygonum punctatum	/				X
*Rhexia						Echinocloa walteri	/				X
*Rhynchospora corniculata						Morning glory → Ipomoea sp.	/				
*Rhynchospora inundata											
Rhynchospora nitens											
Ricciocarpus natans											
Sabal palmetto											
Sacciolepis striata	/	/	/								
*Sagittaria filiformis											
*Sagittaria graminea											
*Sagittaria isoetiformis											
Sagittaria lancifolia	/	/	/								
Sagittaria latifolia											

WBID_3017A_Lake_Douglas

