

**FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION**

STRATEGIC MONITORING PLAN Field Sheet

July 2022

Meter
Passed End
of Day CCV☒ Yes / ☐ No

WIN Station Name:	Lake Belle North Cove				Sample Date:	10/10/2022	
WIN / Field ID:	G3CE0044	ORG ID:	21FLCEN	ENR:			
County:	Polk	WBID:	1613E	LAKE	3F	Latitude:	27.8833
Receiving Body of Water:	-				Longitude:	-81.5873	
					RQ-	2022-06-27-14	

Sampling Team Members	WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
Victoria Schwartz	x		x		
Terry Riordan		x		x	x

Sampling Equipment			
x	Sample Container	Carboy	
	Dipper	Van Dorn	
x	Syringe	Pole	
Syringe Lot# 2090604		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:	High
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	1251	5.9	0.3	9.39	116.5	26.4	7.12	1	274.8	0.13
	1301		2	7.05	85.8	25.4	6.79		274.4	0.13
	1304		5.4	1.77	21.5	25	6.64		276.7	0.13

Biological Samples Collected:	LVI				
SBIO Visit ID:	HA ID:	RPS ID:	Macrophyte ID:	LIMS ID:	

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	Syringe Lot#:2090604; Filter Lot#:17413308			
Acid Preserved Nutrients	W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP			ICE	H2SO4*	SA1308030	12/1/22	H2SO4 pH<2
Metals	W-ICPMS	W-ICP	W-HARD	ICE	HNO3**	NA1105100	6/7/22	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								
DOC					SyringeLot#		FilterLot#	
Other(s)								
Field Comments:	Overcast. Water level elevated due to recent hurricane Ian							
Comments on COC:								
Relinquish Date:	10/10/2022	Signature:						

LIMS EVENT ID: CEN-DIST-2022-10-11-01

WIN Import ID: 33730

Enter Field Parameters, Verify Station ID in LIMS DMT: KWM 11/30/22

QC Station ID, Field Parameters in LIMS DMT: VLS 1/20/23

Save Field Sheets on Network: KWM 1/27/23 (Initials/Date)

Migrate Data to WIN: KWM 1/27/23 (Initials/Date)

(Initials/Date)

(Initials/Date)

DEP FORM FD 9000-31: LAKE OBSERVATION FIELD SHEET

SAMPLE ID: _____ MACROPHYTE ID: _____ LATITUDE: 27.8833
 COUNTY: Polk STORET #: G3CE0044 LONGITUDE: -81.5873
 DATE: 10/10/22 TIME: 12:51 SAMPLING AGENCY: 21FLCEN
 SITE NAME: Lake Belle North Cove WBID: 1113E
 FIELD ID/NAME: G3CE0044 LAKE SIZE: 52 RQ: 2022-06-27-14

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>15</u>			<u>10</u>	<u>50</u>			<u>25</u> <u>Cleaving - * future development</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		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>10</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>13</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>SA1308030</u> Exp. Date: <u>12/1/22</u> 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>26.4</u> <u>7.12</u> <u>9.39</u> <u>116.5</u> <u>274.8</u> <u>0.13</u> Mid-Depth: <u>2.0</u> <u>25.4</u> <u>6.79</u> <u>7.05</u> <u>85.8</u> <u>274.4</u> <u>0.13</u> Bottom: <u>5.4</u> <u>25</u> <u>6.64</u> <u>1.77</u> <u>21.5</u> <u>276.7</u> <u>0.13</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>1.0</u> Total Station Depth (M) <u>5.9</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								Sediment Odors: ☐ Normal ☐ Other (Specify): _____ ☐ Anaerobic							
Abundance: Absent Rare Common Abundant Periphyton ☐ ☒ ☐ ☐ Nuisance Plants ☐ ☐ ☒ ☐ Submersed Plants ☐ ☒ ☐ ☐ Exotic Apple Snails ☒ ☐ ☐ ☐								Additional Notes: <u>* water levels slightly elevated due to hurricane Ian</u> <u>* Drain pipes from mowed lawns to lake!</u> <u>Scattered around lake</u>							
Weather Conditions: <u>Sunny/cloudy</u> * SE orange grove no longer there - trees removed w/ likely development in the future (labeled here)															
SAMPLING TEAM: <u>Terry Riordan / Victoria Schwartz</u>										SIGNATURE: <u>[Signature]</u>				DATE: <u>10/10/22</u>	

Waterbody: <u>Lake Belle</u>		County: <u>Polk</u>		Date: <u>10/10/22</u>	
Analyst: <u>Terry Riordan / Victoria Schwarz</u>		Signature: <u>[Signature]</u>		STORET: <u>G3CE0044</u>	
Except where noted as "sp." species level identification required. *Genera that may require lab verification*				Lake units sampled (circle one group):	
Plants in bold = FLEPPC invasive exotic.				1, 4, 7, 10 2, 5, 8, 11	
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.				3, 6, 9, 12	
SPECIES	1	4	7	10	Collected? (✓)
Acer rubrum					
Alternanthera philoxeroides					
Amaranthus australis					
Andropogon sp.					
Azolla filiculoides (A. caroliniana)					
Baccharis sp.					
Bacopa caroliniana					
Bacopa monnieri					
Bidens alba					
Bidens laevis					
Bidens mitis					
Blechnum serrulatum					
Boehmeria cylindrica					
Brasenia schreberi					
Cabomba caroliniana					
Canna					
Centella asiatica					
Cephalanthus occidentalis					
Ceratophyllum demersum					
Chara sp.					
Cladium jamaicense					
Colocasia esculenta					
*Commelina					
Crinum americanum					
*Cyperus alternifolius (C. involucratus)					
Cyperus articulatus					
Cyperus haspan					
*Cyperus lecontei					
*Cyperus polystachyos					
*Cyperus odoratus					
*Cyperus surinamensis					
Cyrtilla racemiflora					
Decodon verticillatus					
Diodia virginiana					
*Echinochloa crus-galli					
*Echinochloa muricatum					
Echinochloa walteri					
Eclipta prostrata (E. alba)					
Eichhornia crassipes					
Eleocharis					
Eleocharis cellulosa					
Eleocharis elongata					
Eleocharis equisetoides					
Eleocharis interstincta					
Eleocharis submersed viviparous					
Eriocaulon compressum					
Eriocaulon decangulare					
Eupatorium capillifolium					
Fraxinus					
Fuirena scirpoides					
Gordonia lasianthus					
Habenaria repens					
Hibiscus coccineus					
Hibiscus grandiflora					
Hydrilla verticillata					
Hydrocotyle sp.					
Hygrophila polysperma					
Hymenocallis sp.					
*Hypericum fasciculatum					
*Hypericum hypericoides					
*Hypericum myrtifolium					
Ilex cassine					
Ipomoea aquatica					
Ipomoea sagittata					
Itea virginica					
Juncus effusus					
*Juncus marginatus					
*Juncus megacephalus					
Juncus repens					
*Juncus scirpoides					
Lachnanthes caroliniana					
Leersia hexandra					
Landoltia punctata (Spirodela punctata)					
Lemna sp.					
Leucothoe racemosa (Eubotrys racemosa)					
Limnobia spongia					
Limnophila sessiliflora					
Liquidambar styraciflua					
*Ludwigia arcuata					
*Ludwigia grandiflora					
*Ludwigia hexapetala					
*Ludwigia leptocarpa					
Ludwigia (native)					

FORM FD 9000-27: LAKE VEGETATION INDEX FIELD SHEET

Site: <u>Lake Belle</u>					Date: <u>10/10/22</u>						
SPECIES	1	4	7	10	Collected? (✓)	SPECIES	1	4	7	10	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 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 Entered as Polygonum sp. since not collected -KM						Wedelia trilobata (Sphagnetocola trilobata)					
*Polygonum						Wolffiella spp.					
Pontederia cordata						Woodwardia virginica					
*Potamogeton diversifolius						Xyris sp.					
*Potamogeton illinoensis						Zizania aquatica					
*Potamogeton pusillus						Zizaniopsis milacea					
*Potamogeton pectinatus (Stuckenia pectinatus)						<u>Hypericum / Ludwigia</u> ^{2x} _{erecta} ^(?)					
Proserpinaca pectinata						<u>Erechtites</u> _(Arenaria)					
*Rhexia						<u>Gnaphalium</u> _{foliosus}					
*Rhynchospora corniculata						<u>Phyla nodiflora</u>					
*Rhynchospora inundata						<u>Carex</u>					
Rhynchospora nitens						<u>Mitreola sessilifolia</u>					
Ricciocarpus natans											
Sabal palmetto											
Sacciolepis striata											
*Sagittaria filiformis											
*Sagittaria graminea											
*Sagittaria isoetiformis											
Sagittaria lancifolia											
Sagittaria latifolia											

LVI Map for Lake Belle, WBID 1613E

