

LVI

Site Name Lake Douglas @ Center Sample Date 7/1/19

WBID 3017A2 WIN ID G2CE0210 RQ 2019-06-03-47

	Initial/Date	QC Initial/Date
Water chemistry data to LIMS	KWM JUL 09 2019	LB 08/12/19
Create SBIO station visit	KWM JUL 09 2019	n/a
Vascular Entry (add LIMS ID)	KWM JUL 17 2019	LB 08/12/19
Lake Observation Sheet Entry	KWM JUL 17 2019	LB 08/12/19
Authorize SBIO data	LB 08/12/19	n/a
Scan all sheets to 21FLCEN folder	LB 08/12/19	n/a
LIMS/WIN migration	MD 8/23/19	n/a
File in cabinet		n/a

Comments/notes:

855 14147



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2019

Data Qualified?

Yes / No

WIN Station Name: Lake Douglas @ Center

Date: 07/01/2019

WIN/ Field ID: G2CE0210

WBID: 3017A2

Latitude: 28.582311

County: Orange

ORG ID: 21FLCEN

Longitude: -81.255258

Receiving Body of Water:

RQ-2019- 06-03-47

Sampling Team Members					WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check	Sampling Equipment				
Katie March					☒	☒	☒	☒	☒	☒ Sample Container	☐ Van Dorn	☐ Pole		
Leif Boman					☒	☒	☒	☒	☒	☐ Carboy	☒ Syringe			
					☒	☒	☒	☒	☒	☐ Dipper	☐ Other			
										Depth Measured with Secchi Disk Line / Meter				
										Equipment ID Leadfoot, Knothead, Crusty Bucket, Mucky Trap				
Collection Method														
☐ Wading					☐ Canoe/Kayak									
☐ From Shore					☒ Electric Motor									
☐ Other					☐ Gasoline Motor									
Water Level: Dry/ Pooled/ Low / Normal / High / Flooded										Motor ID# Betty / 67		Matrix: Fresh / Marine / DI		
Photos: Yes / No		Flow: No Flow / Intestinal / Flowing / NA		Tide: Rising/ Falling/ Slack/ NA		Tide Times: High Low								
Time Zone	Time	Total Depth (m)	Sample Depth (m)	Secchi Disk (m)	DO (mg/L)	DO (%SAT)	pH	Salinity (PPT)	Sp COND (umhos/cm)	Temp. (C°)				
EST	1130	4.0	0.3	1.7	4.24	56.9	6.57	0.04	141	30.62				
GEN			3.5		0.35	4.3	6.22	0.07	155	25.94				
Biological Samples Collected: None HA SCI RPS Algae ID LVS LVI Other:														
SBIO ID Numbers: SBIO-ID: 79912 HA-ID: RPS-ID: Macrophyte-ID: 11417 LIMS#: 2099946														
Parameter Suite		Parameter Methods				Preservation		Lot#		Expiration		pH Check		
Preserved Nutrients		☒ W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP				☒ Ice ☒ H2SO4		SA9010030		4/10/20		☒ <2		
Metals		☐ W-ICPMS ☐ W-ICP				☐ Ice ☐ HNO3						☐ <2		
Filtered Nutrients		☒ W-PO4-F ☒ Field Filtered 0.45 um Filter				☒ Ice		13615055						
Chlorophyll		☒ CHLSUITE-W				☒ Ice								
Physical/Aggregate (Fresh)		☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-Cl-IC / W-COLOR / W-SO4-IC / W-TDS				☒ Ice								
Physical/Aggregate (Marine)		☐ Alkalinity / W-F / W-TSS / TURBIDITY				☐ Ice								
Macroinvertebrates		☐ MI-FW-QLDC				☐ Formalin								
Periphyton		☐ ALGAE-ID				☐ Ice								
Microbiology		☐ E Coli ☐ F Coli ☐ Enterococci				☐ Ice								
Molecular		☐ PCR-FILTER ☐ PCR-BacR ☐ PCR-GULL2				☐ Ice								
		☐ PCR-HF183 ☐ PCR-DG3 ☐ PCR-GFD				☐ Ice								
Tracers		☐ W-E8321-DI ☐ W-E8321-MS				☐ Ice								
Pesticides		☐ W-PSNP-TQ ☐ W-CT-CL-R ☐ W-E8321-DI				☐ Ice								
		☐ W-PCL-SQ-R ☐ WE8321-MS ☐ W-CARB-AA				☐ Other								
Phytoplankton		☐ DTY-QN-C ☐ PKD-QN-C				☐ Ice								

Notes:

WIN ID / Field ID →

Lake Douglas @ Center



G2CE0210

Signature: K March

Date: 7/1/19

LIMS EVENT ID: CENT-DIST-2019- 07-02-01

Enter Field Parameters, Verify Station ID In LIMS DMT: KWA JUL 09 2019

QC Station ID, Field Parameters In LIMS DMT: 48 08/12/19

Scan/Save Field Sheets 48 08/12/19

Migrate Data to WIN: (Initials/Date) C-11 8/23/19

Verify Data In WIN: (Initials/Date)

DEP FORM FD 9000-27 LAKE VEGETATION INDEX FIELD SHEET

Waterbody: <u>Lake Douglas</u>		County: <u>Orange</u>		Date: <u>07/01/19</u>							
Analyst: <u>Katie March, Keif Brown</u>		Signature: <u>K March</u>		STORET: <u>GZCE0210</u>							
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 <u>3, 6, 9, 12</u>							
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	3	6	9	12	Collected? (✓)	SPECIES	3	6	9	12	Collected? (✓)
Acer rubrum						Fraxinus					
Alternanthera philoxeroides						Fuirena scirpoides					
Amaranthus australis						Gordonia lasianthus					
Andropogon sp.						Habenaria repens					
Azolla filiculoides (A. caroliniana)						Hibiscus coccineus					
Baccharis sp.						Hibiscus grandiflora					
Bacopa caroliniana						Hydrilla verticillata					
Bacopa monnieri						Hydrocotyle sp.					
Bidens alba						Hygrophila polysperma					
Bidens laevis						Hymenocallis sp.					
Bidens mitis						*Hypericum fasciculatum					
Blechnum serrulatum						*Hypericum hypericoides					
Boehmeria cylindrica						*Hypericum myrtifolium					
Brasenia schreberi						Ilex cassine					
Cabomba caroliniana						Ipomoea aquatica					
Canna						Ipomoea sagittata					
Centella asiatica						Itea virginica					
Cephalanthus occidentalis						Juncus effusus					
Ceratophyllum demersum						*Juncus marginatus					
Chara sp.						*Juncus megacephalus					
Cicuta maculata						Juncus repens					
Cinnamomum camphora						*Juncus scirpoides					
Cladium jamaicense						Lachnanthes caroliniana					
Colocasia esculenta						Leersia hexandra					
*Commelina						Landoltia punctata (Spirodela punctata)					
Crinum americanum						Lemna sp.					
*Cyperus alternifolius (C. involucratus)						Leucothoe racemosa (Eubotrys racemosa)					
Cyperus articulatus						Limnium spongia					
Cyperus haspan						Limnophila sessiliflora					
*Cyperus lecontei						Liquidambar styraciflua					
*Cyperus polystachyos						*Ludwigia arcuata					
*Cyperus odoratus						*Ludwigia grandiflora					
*Cyperus surinamensis						*Ludwigia hexapetala					
Cyrtia racemiflora						*Ludwigia leptocarpa					
Decodon verticillatus						Ludwigia (native)					
Diodia virginiana						*Ludwigia octovalvis					
*Echinochloa crus-galli						*Ludwigia peruviana					
*Echinochloa muricatum						*Ludwigia repens					
Echinochloa walteri						Ludwigia suffruticosa					
Eclipta prostrata (E. alba)						Luziola fluitans (Hydrochloa carolinensis)					
Eichhornia crassipes						Magnolia virginiana					
*Eleocharis						Mayaca fluviatilis					
Eleocharis cellulosa						Melaleuca quinquenervia					
*Eleocharis elongata						Micranthemum glomeratum					
Eleocharis equisetoides						Micranthemum umbrosum					
Eleocharis interstincta						Mikania scandens					
Eleocharis submersed viviparous						Mimosa pigra					
*Eriocaulon compressum						Myrica cerifera					
*Eriocaulon decangulare											
Eupatorium capillifolium											

Site:					Date:						
SPECIES	3	6	9	12	Collected? (✓)	SPECIES	3	6	9	12	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 gibba (U. biflora)					
Persea sp.						*Utricularia foliosa					
Pennisetum purpureum						*Utricularia inflata					
Phragmites australis						*Utricularia purpurea					
Pinus elliotii						*Utricularia radiata					
Pistia stratioides						*Utricularia resupinata					
Pluchea sp.						Vallisneria americana					
*Polygonum glabrum (densiflorum)						Vitis sp.					
Polygonum hirsutum						*Websteria confervoides					
*Polygonum hydropiperoides						Wedelia trilobata (Sphagneticola trilobata)					
*Polygonum punctatum						Wolffiella spp.					
*Polygonum						Woodwardia virginica					
Pontederia cordata						Xyris sp.					
*Potamogeton diversifolius						Zizania aquatica					
*Potamogeton illinoensis						Zizaniopsis milacea					
*Potamogeton pusillus											
*Potamogeton pectinatus (Stuckenia pectinatus)											
Proserpinaca pectinata											
*Rhexia											
*Rhynchospora comiculata											
*Rhynchospora inundata											
Rhynchospora nitens											
Ricciocarpus natans											
Sabal palmetto											
Sacciolepis striata											
*Sagittaria filiformis											
*Sagittaria graminea											
*Sagittaria isoetiformis											
Sagittaria lancifolia											
Sagittaria latifolia											

DEP FORM FD 9000-31: LAKE OBSERVATION FIELD SHEET

SAMPLE ID: _____ MACROPHYTE ID: _____ LATITUDE: _____
COUNTY: Orange STORET #: 62UE0210 LONGITUDE: _____
DATE: 7/1/19 TIME: _____ SAMPLING AGENCY: _____
SITE NAME: Lake Douglas @ Center WBID: 3017A2
FIELD ID/NAME: _____ LAKE SIZE: _____ RQ: 2019-06-03-47

WATERSHED / LAKESIDE FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category – from GIS) : Forest/Natural ☐ Silviculture ☐ Field/Pasture ☐ Agricultural ☐ Residential ☒ Commercial ☐ Industrial ☐ Other (Specify) ☐ <u>100</u>				LANDSCAPE DEVELOPMENT INTENSITY (100 m buffer) LDI:	
Local Watershed Erosion (select one) : ☐ None ☒ Slight ☐ Moderate ☐ Heavy Local Watershed NPS Pollution : ☐ No evidence ☐ Slight ☒ Moderate ☐ Heavy Artificially Impounded ☐ Yes ☒ No				Land Use Source & Year:	
STORMWATER INPUTS <u>4</u>		Stormwater enters system via sheet flow over non-cultivated and/or natural vegetation 20 19 18 17 16		Some direct stormwater inputs (ditches, pipes, cultivated vegetation < 10%) but good BMPs in place 15 14 13 12 11	
LAKESIDE ALTERATIONS <u>4</u>		Very few man-made structures, roads, or other disturbance adjacent to lake (<10% lakeside affected) 20 19 18 17 16		Moderate disturbance visible - structures, roads or other (10%-49% lakeside affected) 15 14 13 12 11	
BUFFER ZONE <u>4</u>		Expected native vegetation between uplands and littoral zone, greater than 90% of shore with >18 m buffer 20 19 18 17 16		Moderate direct inputs of stormwater (ditches, pipes, cultivated vegetation 11%-50%) but few BMPs in place 10 9 8 7 6	
				Much direct input of stormwater (ditches, pipes, cultivated vegetation > 51%) and no or ineffective BMPs in place 5 4 3 2 1	
				Many structures, roads or other human disturbance visible (50%-70% lakeside affected) 10 9 8 7 6	
				Highly developed or disturbed (>70% of lakeside affected) 5 4 3 2 1	
				50%-30% of shoreline with >18m buffer or 50%-74% with 10m to 18m buffer 10 9 8 7 6	
				< 29% of shoreline with >18m buffer 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>30.62</u> <u>6.57</u> <u>4.24</u> <u>56.9</u> <u>141</u> <u>0.06</u> Mid-Depth: _____ Bottom: <u>3.5</u> <u>25.94</u> <u>6.22</u> <u>0.35</u> <u>4.3</u> <u>155</u> <u>0.07</u>				Water Surface Oils: ☒ None ☐ Sheen/Slick ☐ Glob ☐ Other _____			
Meter ID: <u>Betty 67</u>				Clarity: ☒ Clear ☐ Opaque ☐ Turbid ☐ Slightly Turbid			
Sediment Type: (may check more than one) ☐ Sandy ☐ Organic fibrous (peaty, CPOM) ☐ Vegetated ☐ Sand/Silt ☐ Organic smooth (muck) ☐ Other (Specify): _____				Color: ☐ Clear ☒ Tannic ☐ Green			
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				SECCHI (M) <u>1.7</u> Total Station Depth (M) <u>4.0</u> VOB ☐			
Abundance: Absent Rare Common Abundant Periphyton ☐ ☒ ☐ ☐ Nuisance Plants ☐ ☐ ☒ ☐ Submersed Plants ☐ ☐ ☒ ☐ Exotic Apple Snails ☐ ☐ ☐ ☒				Sediment Odors: ☒ Normal ☐ Other (Specify): _____ ☐ Anaerobic			
Weather Conditions :				Additional Notes:			
SAMPLING TEAM: <u>Leif Boman, Katie March</u>				SIGNATURE: <u>KMarch</u>			
DATE: <u>7/1/19</u>							