

LVI

Site Name Lake Theresa Sample Date 7/16/20
WBID 316847 WIN ID 64CE0151 RQ 2020-07-20-52

	Initial/Date	QC Initial/Date
Water chemistry data to LIMS	KWM 7/20	TR 8/11/20
Create SBIO station visit	KWM 7/20	n/a
Vascular Entry (add LIMS ID)	KWM 7/21	TR 8/11/20
Lake Observation Sheet Entry	KWM 7/20	TR 8/11/20
Authorize SBIO data	TR 8/11/20	n/a
Scan all sheets to 21FLCEN folder	KWM 8/14/20	n/a
LIMS/WIN migration	KWM 8/17/20	n/a
File in cabinet		n/a

Comments/ notes:

Lake Theresa water chem w/ this RQ



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2020

Meter Passed End
of Day CCV
Yes / No

WIN Station Name: Lake Theresa @ Center

Date: 7/14/20
(mm/dd/yyyy)

WIN/ Field ID: G4CE0151

WBID: 3168Y7

Latitude: 28.56069527

(Decimal Degrees)

County: Orange

ORG ID: 21 PL CEN

Longitude: -81.33919915

(Decimal Degrees)

Receiving Body of Water:

RQ-2020- 07-20-52

Sampling Team Members	WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
Liz Bates					
Katie March					

Sampling Equipment	
☐ Sample Container	☐ Van Dorn
☐ Syringe	☐ Pole
☐ Dipper	☐ Other
Depth Measured with _____	
Equipment ID _____	

Collection Method	
☐ Wading	☐ Canoe/Kayak
☐ From Shore	☐ Electric Motor
☐ Other	☐ Gasoline Motor

Water Level: Dry/ Pooled/ Low / Normal / High / Flooded				Meter ID#			
Photos: Yes / No		Flow: No Flow / Flowing / NA		Tide: Rising/ Falling/ Slack/ NA		Tide Times: High Low	
Biological Samples Collected: None HA SCI RPS Algae ID LVS LVI Other:							
SBIO ID Numbers:		SBIO-ID: 81201		HA-ID: n/a		RPS-ID: n/a	
						Macrophyte-ID: 11687	
						LIMS#: 2184047	
Notes:							

Duplicate Sample

Time Zone: EST CEN	Time: _____	Field ID: _____	(WIN ID_DUP)
WIN DMT Activity ID: _____			

Blank

Time Zone: EST CEN	Time: _____	Field ID: _____	(Blank Type_DDMMYYYY)
DI Source: _____		Location: _____	
☐ Field Blank	☐ Equipment Blank	☐ Field Cleaned Equipment Blank	Equipment ID: _____

LIMS EVENT ID: CEN-DIST-2020- 07-17-01

WIN Import ID: 21509

Enter Field Parameters, Verify Station ID In LIMS DMT: KWM 7/20/20
(Initials/Date)

QC Station ID, Field Parameters In LIMS DMT: TR 8/11/20
(Initials/Date)

Scan/Save Field Sheets KWM 8/14/20
(Initials/Date)

Migrate Data to WIN: KWM 8/17/20
(Initials/Date)

Verify Data In WIN: _____
(Initials/Date)



RQ-2020- 07-20-52

Customer: CEN-DIST

Project ID: SMP

Collected By: _____

Field Report Prepared By: _____

Sampling Agency: FDEP CEN-ROC

WIN ID / Field ID → Lake Theresa @ Center  G4CE0151						Comments: aerator				
Matrix: Fresh / Marine						(Check one) ☐ GRAB ☐ COMPOSITE				
Date	Time	DO (mg/L)	DO (%SAT)	Temp. (C°)	pH	Sample Depth (m)	Secchi Disk (m)	Total Depth (m)	Sp COND (µmhos/cm)	Salinity (PPT)
07/16/20	13:06 EST / CST	5.14	77.1	31.7	7.44	0.303	1.4 ☐ VOB (S)	2.6	169.3	0.08
Central Lab please use top row for login purposes										
	13:09 EST / CST	4.08	54.6	30.8	7.28	2.103			169.3	0.08
Parameter Suite		Parameter Methods				Preservation		pH Check	# Bottles sent to Lab	Bottle Group
Preserved Nutrients (P-500ML)		☒ W-NH3 / ☒ W-NO2NO3 / ☒ W-TKN / ☒ W-TOC / ☒ W-S-A-TP				☒ Ice ☒ H2SO4*		☒ <2		
		Lot # SA9354050		Exp: 12/20/20						
Metals (P-500ML)		☐ W-ICPMS ☐ W-ICP ☐ W-HARD				☐ Ice ☐ HNO3*		☐ <2		
		Lot #		Exp:						
Filtered Nutrients (P125ML)		☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter				☒ Ice				
		Filter Lot # 16930280								
		Syringe Lot # 9149785								
Chlorophyll (BP-1L)		☒ CHLSUITE-W				☒ Ice				
Physical/Aggregate (Fresh) (P-1L)		☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-CL-IC / W-COLOR / W-SO4-IC / W-TDS				☒ Ice				
Physical/Aggregate (Marine) (P-1L)		☐ Alkalinity / W-BR-IC / W-F / W-TSS / TURBIDITY				☐ Ice				
Macroinvertebrates (PJ-2L)		☐ MI-FW-QLDC				☐ Formalin				
Periphyton (PT-50ML)		☐ ALGAE-ID				☐ Ice				
Microbiology (Contract Lab Bottle)		☐ E Coli ☐ F Coli ☐ Enterococci ☐ Contract Lab				☐ Ice				
Molecular (QPCR-P-500ML)		☐ PCR-HF183 ☐ PCR-BacR ☐ PCR-DG3 ☐ PCR-GULL2 ☐ PCR-GFD ☐ See Notes				☐ Ice				
Tracers (BG-500ML)		☐ W-E8321-DI ☐ W-E8321-MS				☐ Ice				
Pesticides (BG-500ML) (BG-1L)		☐ W-E8321-DI ☐ WE8321-MS ☐ W-PSNP-TQ ☐ W-CT-CL-R ☐ W-PCL-SQ-R ☐ W-CARB-AA (5 ml of MCAA** Buffer Solution)				☐ Ice				
Name: Kate Marshall		Signature: K Marshall						Date: 7/16/20		

*2.0 ml of Preservative used unless noted otherwise.

**MCAA: Monochloroacetic acid buffer solution

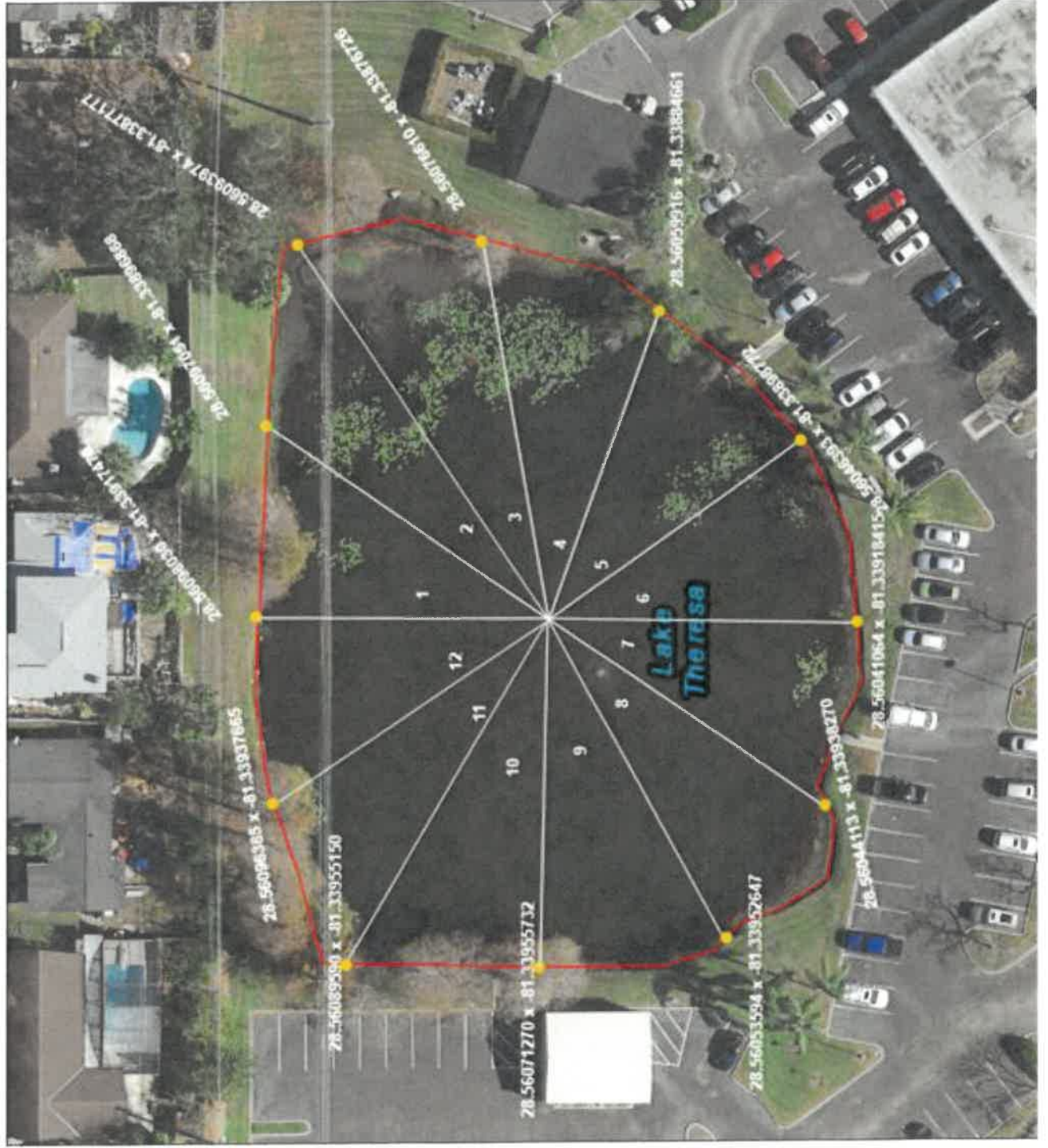
DEP FORM FD 9000-27 LAKE VEGETATION INDEX FIELD SHEET

Waterbody: <u>Lake Theresa</u>		County: <u>Orange</u>		Date: <u>7/16/20</u>							
Analyst: <u>Kate Mandy, Liz Bates</u>		Signature: <u>KMandy</u>		STORET: <u>640E051</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 <u>3, 6, 9, 12</u>							
SPECIES	3	6	9	12	Collected? (✓)	SPECIES	3	6	9	12	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					
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 hex-grand-uruguayensis complex**					
*Cyperus surinamensis	✓					*Ludwigia leptocarpa					
Cyrilla racemiflora						Ludwigia (native)					
Decodon verticillatus						*Ludwigia octovalvis					
Diodia virginiana						*Ludwigia peruviana					
*Echinochloa crus-galli	✓					*Ludwigia repens					
*Echinochloa muricatum						Ludwigia suffruticosa					
Echinochloa walteri						Luziola fluitans (Hydrochloa carolinensis)					
Eclipta prostrata (E. alba)						Magnolia virginiana					
Eichhornia crassipes						Mayaca fluviatilis					
*Eleocharis						Melaleuca quinquenervia					
Eleocharis cellulosa						Micranthemum glomeratum					
*Eleocharis elongata						Micranthemum umbrosum					
Eleocharis equisetoides						Mikania scandens					
Eleocharis interstincta						Mimosa pigra					
Eleocharis submersed viviparous			✓			Myrica cerifera					
*Eriocaulon compressum											
*Eriocaulon decangulare											
Eupatorium capillifolium											
Fraxinus											

FORM FD 9000-27: LAKE VEGETATION INDEX FIELD SHEET

Site:					Date:				
SPECIES				Collected? (✓)	SPECIES				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					Phyla nodiflora			✗	
*Rhynchospora corniculata					Lygodesmia				?
*Rhynchospora inundata									
Rhynchospora nitens									
Ricciocarpus natans									
Sabal palmetto	✗								
Sacciolepis striata									
*Sagittaria filiformis									
*Sagittaria graminea									
*Sagittaria isoetiformis									
Sagittaria lancifolia									
Sagittaria latifolia									

LVI Map for Lake Theresa, WBID 3168Y7



DEP FORM FD 9000-31: LAKE OBSERVATION FIELD SHEET

SAMPLE ID: _____	MACROPHYTE ID: _____	LATITUDE: _____
COUNTY: Orange	STORET #: G4CE0151	LONGITUDE: _____
DATE: 7/16/20	TIME: _____	SAMPLING AGENCY: _____
SITE NAME: Lake Theresa		WBID: 3168Y7
FIELD ID/NAME: _____	LAKE SIZE: _____	RQ: 2020-07-20-52

WATERSHED / LAKESIDE FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category – from GIS) : Forest/Natural Silviculture Field/Pasture Agricultural Residential 35 Commercial 65 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 2		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		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	
LAKESIDE ALTERATIONS 2		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		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	
BUFFER ZONE 2		Expected native vegetation between uplands and littoral zone, greater than 90% of shore with >18 m buffer 20 19 18 17 16		89%-51% of shoreline with >18m buffer or >75% with 10m to 18m buffer 15 14 13 12 11		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 _____					
						Water Surface Oils: ☒ None ☐ Sheen/Slick ☐ Glob ☐ Other _____					
Meter Readings: Top: 0.303 31.7 7.44 5.66 77.1 169.3 0.08 Mid-Depth: Bottom: 2.103 30.8 7.28 4.08 54.6 169.3 0.08		Clarity: ☒ Clear ☐ Opaque ☐ Turbid ☐ Slightly Turbid		Color: ☐ Clear ☒ Tannic ☐ Green							
Meter ID: Shrimp Trap		SECCHI (M) 1.4		Total Station Depth (M) 2.6							
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: 			
Weather Conditions : Hot, sunny											
SAMPLING TEAM: Liz Bates, Katie March						SIGNATURE:			DATE: 7/14/20		