

**FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION**

STRATEGIC MONITORING PLAN Field Sheet

July 2022

Meter
Passed End
of Day CCV☒ Yes / ☐ No

WIN Station Name:	Triplet Lake @ Center of Middle Lobe					Sample Date:	8/8/2022
WIN / Field ID:	G2CE0213	ORG ID:	21FLCEN	ENR:	-	Latitude:	28.66972
County:	Seminole	WBID:	2994B1	LAKE		Longitude:	-81.32694
Receiving Body of Water:	-					RQ-	2022-08-08-21

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

Sampling Equipment			
x	Sample Container	Carboy	
	Dipper	Van Dorn	
x	Syringe	Pole	
Syringe Lot# 1335260		Filter Lot# 17413308	
Secchi Equipment ID:		Knothead	
Collection Method			
	Wading		Canoe/Kayak
	From Shore	x	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

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	1205	1.7	0.3	6.33	85.8	31.4	7.22	0.9	154.9	0.07
	1210		1.2	6.27	85.1	31.4	7.11		154.8	0.07

Biological Samples Collected:

LVI

SBIO Visit ID: 85172

HA ID:

RPS ID:

Macrophyte ID: 12273

LIMS Sample ID Entered
Into The Macrophyte Module: 2347243

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*	132275	12/07/22	H2SO4 pH<2
Metals	W-ICPMS	W-ICP	W-HARD	ICE	HNO3**	NA1105100	6/7/23	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, then stormy							
Comments on COC:								
Relinquish Date:	08/08/2022	Signature:						

LIMS EVENT ID: CEN-DIST-2022-08-09-01

WIN Import ID: 35491

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

QC Station ID, Field Parameters In LIMS DMT: KWM 9/20/22

Save Field Sheets on Network: (Initials/Date)

Migrate Data to WIN: KWM 9/20/22 (Initials/Date)

DEP FORM FD 9000-27 LAKE VEGETATION INDEX FIELD SHEET

Waterbody: <u>Triplet Lake</u>		County: <u>Seminole</u>		Date: <u>8/8/22</u>							
Analyst: <u>Kate March, Liz Bates</u>		Signature: _____		STORET:							
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 <u>mutilum</u>	/				5
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		/				Limnium spongia					
*Cyperus lecontei						Limnophila sessiliflora					
*Cyperus polystachyos						Liquidambar styraciflua					
*Cyperus odoratus		/				*Ludwigia arcuata		3			
*Cyperus surinamensis						*Ludwigia grandiflora ?	/				
Cyrilla 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 <u>baldwinii</u>	/					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:					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						Sapillum 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		/	/	/		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)						Sabal palmetto	/	/	/	/	
Proserpinaca pectinata						Hypericum sp.	/	/	/	/	
* Rhexia						glomeratum					
* Rhynchospora corniculata						Urochloa urvillei	/	/	/	/	
* Rhynchospora inundata						phyla nodiflora	/	/	/	/	
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: 28.669722
 COUNTY: Seminole STORET #: _____ LONGITUDE: -81.326944
 DATE: 8/8/22 TIME: _____ SAMPLING AGENCY: CFROC
 SITE NAME: Triplet Lake @ Center of Middle Lake WBID: 2994B1
 FIELD ID/NAME: G2CE0213 LAKE SIZE: _____ RQ: 2022-08-08-21

WATERSHED / LAKESIDE FEATURES

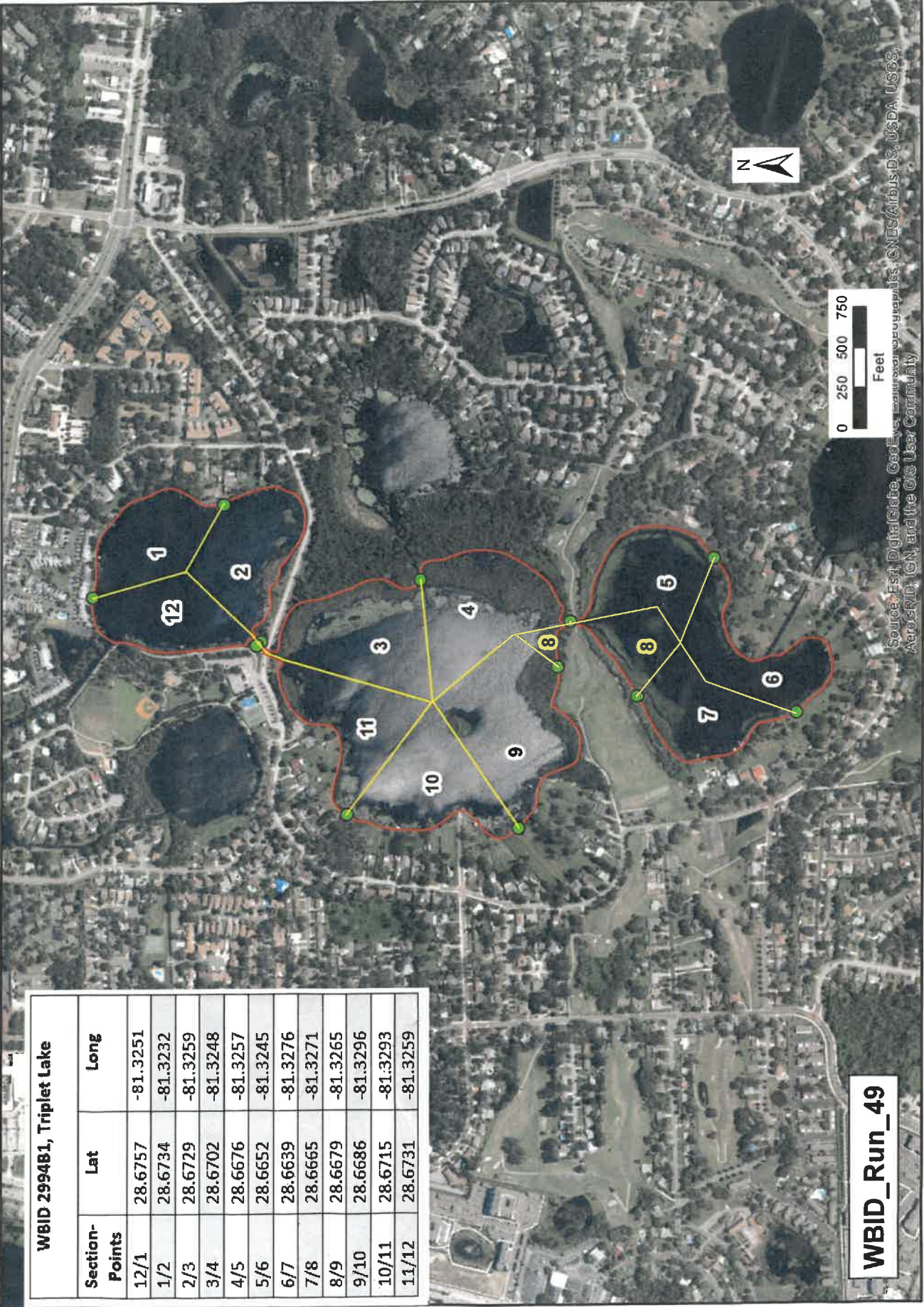
PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category - from GIS) :					LANDSCAPE DEVELOPMENT INTENSITY (100 m buffer)								
Forest/Natural	Silviculture	Field/Pasture	Agricultural	Residential	Commercial	Industrial	Other (Specify)	LDI: _____					
<u>25</u>				<u>45</u>	<u>30</u>			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>8</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>6</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 ☒ 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: <u>0.3</u> <u>31.4</u> <u>7.22</u> <u>6.33</u> <u>85.8</u> <u>154.9</u> <u>0.07</u> Mid-Depth: <u>/</u> <u>/</u> <u>/</u> <u>/</u> <u>/</u> <u>/</u> <u>/</u> Bottom: <u>1.2</u> <u>31.4</u> <u>7.11</u> <u>6.27</u> <u>85.1</u> <u>154.8</u> <u>0.07</u>							Clarity: ☐ Clear ☐ Opaque ☐ Turbid ☒ Slightly Turbid Color: ☐ Clear ☒ Tannic ☐ Green						
Meter ID: _____							SECCHI (M) <u>0.9</u> Total Station Depth (M) <u>1.7</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 ☐ Anaerobic ☐ Other (Specify): _____						
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>90's, Light Clouds</u>							Additional Notes: <u>Large nuphar in section 3, could not access shore.</u> <u>Motor died, 2 sections + water samples on 8/8</u>						
SAMPLING TEAM: <u>K. March, L. Bates, T. Riordan, M. Bearden</u>							SIGNATURE: <u>M. B. L.</u> DATE: <u>8/15/22</u>						

LVI Map for Triplet Lake, WBID 2994B1

WBID 299481, Triplet Lake			
Section-Points	Lat	Long	
12/1	28.6757	-81.3251	
1/2	28.6734	-81.3232	
2/3	28.6729	-81.3259	
3/4	28.6702	-81.3248	
4/5	28.6676	-81.3257	
5/6	28.6652	-81.3245	
6/7	28.6639	-81.3276	
7/8	28.6665	-81.3271	
8/9	28.6679	-81.3265	
9/10	28.6686	-81.3296	
10/11	28.6715	-81.3293	
11/12	28.6731	-81.3259	



WBID_Run_49