



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

STRATEGIC MONITORING PLAN Field Sheet

July 2022

Meter
Passed End
of Day CCV

Yes / No

WIN Station Name:	DRUID LAKE NEAR CENTER					Sample Date:	6/15/2023	
WIN / Field ID:	G2CE0285	ORG ID:	21FLCEN	ENR:	-	Latitude:	28.56058	
County:	ORANGE	WBID:	3168W2	LAKE		Longitude:	-81.34984	
Receiving Body of Water:	-					RQ-	2023-06-12-31	

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# 2327923		Filter Lot# 17769663	
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
Depth Gauge ID:	depth_gauge

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	1418	3.7	0.3	8.31	111.8	30.9	7.38	1.9	126	0.06
	1421		2	6.41	84.6	29.8	7.16		125.8	0.06
	1423		3.2	0.98	12.5	28.1	6.89		114.1	0.05

Biological Samples Collected:

LVI

SBIO Visit ID: 87180

HA ID:

RPS ID:

Macrophyte ID: 12474

LIMS Sample ID Entered
Into The Macrophyte Module: 2418203

Parameter Suite	Parameter Methods (LIMS Test Codes)			Preservation			
	Type	Lot#	Expiration Date	pH Check			
Microbiology							
Chlorophyll	CHLSUITE-W			ICE			
Physical/Aggregate	ALKALINITY, TURBIDITY, W-F, W-TSS			ICE			
Nutrients	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#:2327923; Filter Lot#:17769663	
Acid Preserved Nutrients	W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP			ICE	H2SO4*	SA3013020	1/25/24
Metals	W-ICPMS	W-ICP	W-HARD	ICE	HNO3**	NA2230040	9/1/23
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							
Other(s)							
Field Comments:	Sunny						
Comments on COC:							
Relinquish Date:	06/15/2023	Signature:					

LIMS EVENT ID: CEN-DIST-2023-06-16-02

WIN Import ID: 41618

Enter Field Parameters, Verify Station ID In LIMS DMT: KWM 7/7/23

QC Station ID, Field Parameters In LIMS DMT: VLS 7/12/23

Save Field Sheets on Network: KWM 7/19/23 (Initials/Date)

Migrate Data to WIN: KWM 7/19/23 (Initials/Date)

(Initials/Date)

(Initials/Date)

DEP FORM FD 9000-31: LAKE OBSERVATION FIELD SHEET

SAMPLE ID: _____ MACROPHYTE ID: _____ LATITUDE: 28.56058
 COUNTY: Orange STORET #: G2CE0285 LONGITUDE: -81.34984
 DATE: 6/15/23 TIME: 14:18 SAMPLING AGENCY: 21FCEN
 SITE NAME: David Lake near Center WBID: 3168W2
 FIELD ID/NAME: G2CE0285 LAKE SIZE: _____ RQ: 2023-06-12-31

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)														
<u>45.20</u>				<u>55.80</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>5</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>5</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>SA3013020</u> Exp. Date: <u>1/25/24</u> 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>30.9</u> <u>7.38</u> <u>8.31</u> <u>111.8</u> <u>126</u> <u>0.06</u> Mid-Depth: <u>2</u> <u>29.8</u> <u>7.16</u> <u>6.41</u> <u>84.6</u> <u>125.8</u> <u>0.06</u> Bottom: <u>3.2</u> <u>28.1</u> <u>6.89</u> <u>0.98</u> <u>12.5</u> <u>114.1</u> <u>0.05</u>								Clarity: ☒ Clear ☐ Opaque ☐ Turbid ☐ Slightly Turbid Color: ☐ Clear ☒ Tannic ☒ Green <u>VS</u> SECCHI (M) <u>1.9</u> Total Station Depth (M) <u>3.7</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 <u>VS</u> Active Vegetation Mgmt? ☒ Yes ☐ No ☒ Don't Know								Abundance: Absent Rare Common Abundant Periphyton ☐ ☐ ☒ ☐ Nuisance Plants ☐ ☐ ☐ ☒ Submersed Plants ☐ ☐ ☐ ☒ Exotic Apple Snails ☒ ☐ ☐ ☐							
Additional Notes: - Periphyton along shoreline - Sec. 9: can hear flowing water / storm drain - Competing plants for Dominant (lots of lily pads)															
Weather Conditions: <u>Sunny</u> <u>YES</u> → <u>Panicum grass + some Typha appeared to be sprayed</u>															
SAMPLING TEAM: <u>Katie March / Victoria Schwartz</u>								SIGNATURE: <u>Katie March</u>				DATE: <u>6/15/23</u>			

Competing plants for dominant (lots of Lily pads)

Algae shoreline
Sec. 9 storm drain

DEP FORM FD 9000-27 LAKE VEGETATION INDEX FIELD SHEET

Waterbody: <u>Druid Lake</u>		County: <u>Orange</u>		Date: <u>6/15/23</u>							
Analyst: <u>Katie Mark/Victoria Schwartz</u>		Signature: <u>Katie Mark/Victoria Schwartz</u>		STORET: <u>G2CE0285</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 3, 6, 9, 12							
SPECIES	3	6	9	12	Collected? (v)	SPECIES	3	6	9	12	Collected? (v)
Acer rubrum	/					Fraxinus					
Alternanthera philoxeroides	/	/	/	/		Fuirena scirpoidea					
Amaranthus australis						Gordonia lasianthus					
Andropogon sp.						Habenaria repens					
Azolla filiculoides (A. caroliniana)						Hibiscus coccineus					
Baccharis sp.						Hibiscus grandiflorus					
Bacopa caroliniana						Hydrilla verticillata	/	/	/	/	
Bacopa monnieri		/				Hydrocotyle sp.		/	/		
Bidens alba						Hygrophila polysperma					
Bidens laevis						Hymenocallis sp.					
Bidens mitis						*Hypericum fasciculatum					
Boehmeria cylindrica						*Hypericum hypericoides					
Brasenia schreberi						*Hypericum myrtifolium					
Cabomba caroliniana						Ilex cassine		/			
Canna sp.						Ipomoea aquatica					
Centella asiatica						Ipomoea sagittata					
Cephalanthus occidentalis						Itea virginica					
Ceratophyllum demersum	/					Juncus effusus					
Chara sp.		/				*Juncus marginatus					
Cicuta maculata						*Juncus megacephalus					
Cinnamomum camphora						Juncus repens					
Cladium jamaicense						*Juncus scirpoides					
Colocasia esculenta	/	/	/	/		Lachnanthes caroliniana					
*Commelina						Leersia hexandra					
Crinum americanum						Landoltia punctata (Spirodela punctata)					
Cyperus articulatus						Lemna sp.	/	/			
Cyperus blepharoleptos (Scirpus cubensis)	/					Leucothoe racemosa (Eubotrys racemosa)					
Cyperus haspan						Limnium spongia					
*Cyperus involucratus			/			Limnophila sessiliflora					
*Cyperus lecontei						Liquidambar styraciflua					
*Cyperus odoratus						*Ludwigia arcuata					
*Cyperus polystachyos						*Ludwigia grandiflora					
*Cyperus surinamensis		/				*Ludwigia hexapetala					
Cyrilla racemiflora						*Ludwigia leptocarpa					
Decodon verticillatus						Ludwigia (native)					
Diodia virginiana						*Ludwigia octovalvis					
*Echinochloa crus-galli	/					*Ludwigia peruviana	/	/	/	/	
*Echinochloa muricata						*Ludwigia repens					
Echinochloa walteri						Ludwigia suffruticosa					
Eclipta prostrata						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 vivipara (submersed)	/					Mimosa pigra					
*Eriocaulon compressum						Myrica cerifera	/	/			
*Eriocaulon decangulare											
Eupatorium capillifolium	/										

FORM FD 9000-27: LAKE VEGETATION INDEX FIELD SHEET

Site: <u>Dmid</u>					Date: <u>6/15/23</u>						
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					
Nitella spp.											
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 (spraying)	/	/	/			Thelypteris palustris	/	/	/	/	
Paspalidium geminatum						Triadenum virginicum					
* Paspalum repens						Typha sp. (sprayed?)	/	/	/	/	
Paspalum urvillei						Urochloa mutica (Brachiaria mutica)	/	/	/	/	
Peltandra sp.						* Utricularia gibba (U. biflora)	/	/	/	/	
Persea sp.						* Utricularia foliosa					
* Persicaria glabra (densiflora)		/				* Utricularia inflata					
Persicaria hirsuta						* Utricularia purpurea					
* Persicaria hydropiperoides						* Utricularia radiata					
* Persicaria punctata						* Utricularia resupinata					
* Persicaria						Vallisneria americana	/	/	/	/	
Pennisetum purpureum						Vitis sp.					
Phragmites australis						* Websteria confervoides					
Pinus elliotii						Wedelia trilobata (Sphagneticola trilobata)				/	
Pistia stratiotes						Wolffiella spp.					
Pluchea sp.						Woodwardia virginica					
Pontederia cordata				/		Xyris sp.					
* Potamogeton diversifolius						Zizania aquatica					
* Potamogeton illinoensis						Zizaniopsis milacea					
* Potamogeton pusillus											
* Potamogeton pectinatus (Stuckenia pectinatus)						Setaria parviflora	/	/	/	/	
Proserpinaca pectinata						Nymphaea zanzibaricus	/	/	/	/	
* Rhexia						Nymphoides cordata	/	/	/	/	
* Rhynchospora corniculata						Cyperus papyrus				/	
* Rhynchospora inundata						Cyperus prolixus				/	
Rhynchospora nitens						Polygonum	/	/	/	/	
Ricciocarpus natans											
Sabal palmetto											
Sacciolepis striata											
* Sagittaria filiformis											
* Sagittaria graminea											
* Sagittaria isoetiformis											
Sagittaria lancifolia				/							
Sagittaria latifolia											

LVI MAP FOR WBID 3168W2, DRUID LAKE

