

**FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION**

STRATEGIC MONITORING PLAN Field Sheet

July 2022

Meter
Passed End
of Day CCV☒ Yes / ☐ No

WIN Station Name:	Crystal Lake @ 150m SW of Center				Sample Date:	8/1/2022	
WIN / Field ID:	G1CE0103	ORG ID:	21FLCEN	ENR:	-		
County:	Lake	WBID:	2862D	LAKE	Latitude:	28.55332	
Receiving Body of Water:	-				Longitude:	-81.76053	
					RQ-	2022-08-01-34	

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# 1335260		Filter Lot# 17413308	
Secchi Equipment ID:		Knothead	
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:	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	1124	9.7	0.3	7.54	103.6	32.2	7.32	2.9	93.8	0.04
	1129		2	7.37	100.8	32	7.32		93.8	0.04
	1131		9.2	0.41	4.5	19.7	6.1		176.8	0.08

Biological Samples Collected:

LVI

SBIO Visit ID: 85163

HA ID:

RPS ID:

Macrophyte ID: 12265

LIMS Sample ID Entered
Into The Macrophyte Module: 2345163

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	12/7/22	H2SO4 pH<2
Metals	W-ICPMS	W-ICP	W-HARD	ICE	HNO3**	NA1286110	11/16/22	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								
Other(s)								
Field Comments:	Sunny							
Comments on COC:								
Relinquish Date:	08/01/2022	Signature:						

LIMS EVENT ID: CEN-DIST-2022-08-02-71

WIN Import ID: 35390

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

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

(Initials/Date)

Save Field Sheets on Network:

(Initials/Date)

Migrate Data to WIN: KWM 9/9/22

(Initials/Date)

DEP FORM FD 9000-31: LAKE OBSERVATION FIELD SHEET

SAMPLE ID: _____ **MACROPHYTE ID:** _____ **LATITUDE:** 28.55332
COUNTY: Lake **STORET #:** G1CE0103 **LONGITUDE:** -81.76053
DATE: 8/1/22 **TIME:** _____ **SAMPLING AGENCY:** 21PLCEN
SITE NAME: Crystal Lake @ 150m SW of Center **WBID:** 2862D
FIELD ID/NAME: G1CE0103 **LAKE SIZE:** _____ **RQ:** 2022-08-01-34

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>8</u>		<u>2</u>		<u>90</u>			<u>Secretary</u>														
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>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>8</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>9</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:								Water Odors:			
Nutrient Sample Taken? ☒ Yes ☐ No Preserved? ☒ Yes ☐ No pH < 2 ☐ No								☐ Sewage ☐ Petroleum ☐ Other _____			
Color Sample Taken? ☒ Yes ☐ No Lot # <u>132275</u> Exp. Date: <u>12/7/22</u>								Water Surface Oils: ☒ None			
Alkalinity Sample Taken? ☒ Yes ☐ No								☐ Sheen/Slick ☐ Glob ☐ Other _____			
Water Level ☐ Low ☒ Normal ☐ High											
Meter	Depth (M)	Temp. (°C)	pH (SU)	D.O. (MG/L)	D.O. Sat. (%)	Cond. (UMHO/CM)	Salinity (PPT)	Clarity:		Color:	
Readings:								☒ Clear	☒ Clear		
Top:	<u>0.3</u>	<u>32.2</u>	<u>7.32</u>	<u>7.54</u>	<u>103.6</u>	<u>93.8</u>	<u>0.04</u>	☐ Opaque ☐ Turbid	☐ Tannic ☒ Green <u>5</u>		
Mid-Depth:	<u>2.0</u>	<u>32</u>	<u>7.32</u>	<u>7.37</u>	<u>100.8</u>	<u>93.8</u>	<u>0.04</u>	☐ Slightly Turbid			
Bottom:	<u>9.2</u>	<u>19.7</u>	<u>6.1</u>	<u>0.41</u>	<u>4.5</u>	<u>176.8</u>	<u>0.08</u>				
Meter ID: <u>Craw Daddy</u>								SECCHI (M) <u>2.9</u> Total Station Depth (M) <u>9.7</u>			
Sediment Type: (may check more than one)								VOB ☐			
☐ Sandy ☐ Organic fibrous (peaty, CPOM) ☐ Vegetated								Sediment Odors: ☒ Normal ☐ Other (Specify): _____			
☐ Sand/Silt ☐ Organic smooth (muck) ☐ Other (Specify): _____								☐ Anaerobic			
Biological Communities:				Abundance:				Additional Notes:			
LVI Conducted? ☒ Yes ☐ No				Absent Rare Common Abundant				<u>Large Schinus/scirpus/panicum population along shoreline</u> <u>Najas covered in algae</u> <u>- Lift station located N side of S lobe</u>			
Phytoplankton Sample Taken? ☐ Yes ☒ No				Periphyton ☐ ☐ ☒ ☒							
Sample Preserved? ☐ Yes ☐ No				Nuisance Plants ☐ ☐ ☒ ☐							
Lot #: _____ Exp Date: _____				Submersed Plants ☐ ☐ ☐ ☒							
Algal Bloom/Algal ID Sample Taken? Yes ☒ No				Exotic Apple Snails ☒ ☐ ☐ ☐							
Active Vegetation Mgmt? ☐ Yes ☐ No ☒ Don't Know											
Weather Conditions: <u>Sunny</u>											
<u>- Native apple snails observed (eggs)</u>											
SAMPLING TEAM: <u>Katie March/Victoria Schwartz</u>								SIGNATURE: <u>[Signature]</u> DATE: <u>8/1/22</u>			

DEP FORM FD 9000-27 LAKE VEGETATION INDEX FIELD SHEET

Waterbody: <u>Crystal Lake</u>		County: <u>Lake</u>		Date: <u>8/1/22</u>							
Analyst: <u>Katie March + Victoria Schwartz</u>		Signature: <u>K. March / V. Schwartz</u>		STORET: <u>GICE0103</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					
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					
*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						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: <u>Crystal Lake</u>					Date: <u>8/1/22</u>				
SPECIES	3	6	9	Collected? (✓)	SPECIES	3	6	9	Collected? (✓)
Myriophyllum aquaticum					<i>Salix caroliniana</i>				
* <i>Myriophyllum heterophyllum</i>					Salvinia minima				
* <i>Myriophyllum laxum</i>					<i>Sambucus canadensis</i>				
* <i>Myriophyllum pinnatum</i>					Sapium sebiferum				
Myriophyllum spicatum					<i>Saururus cernuus</i>				
* <i>Najas filifolia</i>					Schinus terebinthifolius				
* <i>Najas guadalupensis</i>					* <i>Schoenoplectus californicus</i>				
* <i>Najas minor</i>					* <i>Schoenoplectus pungens</i>				
<i>Nelumbo lutea</i>					* <i>Schoenoplectus tabernaemontani</i> (<i>Scirpus validus</i>)				
<i>Nitella</i> spp.					<i>Scirpus cubensis</i> (<i>Oxycaryon cubense</i>)				
<i>Nuphar</i> sp.					<i>Scirpus cyperinus</i>				
<i>Nymphaea mexicana</i>					* <i>Sesbania</i> <u>sp. (no flowers/pods)</u>				
<i>Nymphaea odorata</i>					<i>Solidago</i> sp.				
<i>Nymphoides aquatica</i>					<i>Sparganium americanum</i>				
<i>Nyssa sylvatica</i> var. <i>biflora</i>					<i>Spartina bakeri</i>				
<i>Orontium aquaticum</i>					<i>Spirodela polyrhiza</i>				
<i>Osmunda cinnamomea</i>					<i>Taxodium</i> sp.				
<i>Osmunda regalis</i>					<i>Thalia geniculata</i>				
<i>Panicum hemitomon</i>					<i>Thelypteris interrupta</i>				
<i>Panicum repens</i>					<i>Thelypteris palustris</i>				
<i>Paspalidium geminatum</i>					<i>Triadenum virginicum</i>				
* <i>Paspalum repens</i>					<i>Typha</i> sp.				
<i>Paspalum urvillei</i>					<i>Urochloa mutica</i> (<i>Brachiaria mutica</i>)				
<i>Peltandra</i> sp.					* <i>Utricularia foliosa</i>				
<i>Persea</i> sp.					* <i>Utricularia gibba</i> (<i>U. biflora</i>)				
<i>Pennisetum purpureum</i>					* <i>Utricularia inflata</i>				
<i>Phragmites australis</i>					* <i>Utricularia purpurea</i>				
<i>Pinus elliotii</i>					* <i>Utricularia radiata</i>				
<i>Pistia stratioides</i>					* <i>Utricularia resupinata</i>				
<i>Pluchea</i> sp.					<i>Vallisneria americana</i>				
* <i>Polygonum glabrum</i> (<i>densiflorum</i>)					<i>Vigna luteola</i>				
<i>Polygonum hirsutum</i>					<i>Vitis</i> sp.				
* <i>Polygonum hydropiperoides</i>					* <i>Websteria confervoides</i>				
* <i>Polygonum punctatum</i>					<i>Wedelia trilobata</i> (<i>Sphagneticola trilobata</i>)				
* <i>Polygonum</i>					<i>Wolffiella</i> spp.				
<i>Pontederia cordata</i>					<i>Woodwardia virginica</i>				
* <i>Potamogeton diversifolius</i>					<i>Xyris</i> sp.				
* <i>Potamogeton illinoensis</i>					<i>Zizania aquatica</i>				
* <i>Potamogeton pusillus</i>					<i>Zizaniopsis milacea</i>				
* <i>Potamogeton pectinatus</i> (<i>Stuckenia pectinatus</i>)									
<i>Proserpinaca pectinata</i>									
* <i>Rhexia</i>									
* <i>Rhynchospora corniculata</i>									
* <i>Rhynchospora inundata</i>									
<i>Rhynchospora nitens</i>									
<i>Ricciocarpus natans</i>									
<i>Sabal palmetto</i>									
<i>Sacciolepis striata</i>									
* <i>Sagittaria filiformis</i>									
* <i>Sagittaria graminea</i>									
* <i>Sagittaria isoetiformis</i>									
<i>Sagittaria lancifolia</i>									
<i>Sagittaria latifolia</i>									

LVI Map for CRYSTAL LAKE, WBID 2862D

