

LVI

Site Name East Crystal Lake 23-LL-12007 Sample Date 10/3/18

WBID 2973 C WIN ID Status ID - 53603 RQ 2018-09-03-63
 ↳ GZCE0110

	Initial/Date	QC Initial/Date
Water chemistry data to LIMS	LMD 10/9/18	MKL 11/26/18
Create SBIO station visit 78939	LMD 10/18/18	n/a
Vascular Entry (add LIMS ID)	LMD 10/18/18	MKL 11/26/18
Lake Observation Sheet Entry	LMD 10/18/18	MKL 11/26/18
Authorize SBIO data	MKL 11/26/18	n/a
Scan all sheets to 21FLCEN folder	LMD 10/18/18	n/a
LIMS/WIN migration	LMD 1/4/19	n/a
File in cabinet		n/a

Comments/notes:

This LVI represents a STATUS & SMP Event.



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STRATEGIC MONITORING PROGRAM FIELD SHEET

April 2018

Data Qualified?

Yes / ☒ No

WIN Station Name: East Crystal Lake @ Center

Date: 10/03/2018
(mm/dd/yyyy)

WIN/ Field ID: G2CE0110

WBID: 2973 C Latitude: 28.77011589
(Decimal Degrees)

County: Seminole

ORG ID: 21 FL CEN Longitude: -81.31428479
(Decimal Degrees)

Receiving Body of Water: _____

RQ-2018- 09-03-63

Sampling Team Members					WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
Mike Linger					☒	☒	☒	☒	☒
Mike Drennan					☒	☒	☒	☒	☒

Sampling Equipment		
☐ Sample Container	☐ Van Dorn	☐ Pole
☐ Carboy	☐ Syringe	
☐ Dipper	☐ Other	
Depth Measured with <u>SECCHI DISK/LINE/METER</u>		
Equipment ID (KNOTHEAD/67, LEADFOOT/NON, CRUSTY/SCUD)		

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

Water Level: Dry/ Pooled/ Low / Normal / High / Flooded

Meter ID# Boop / Non 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 (µmhos/cm)	Temp. (C°)
EST	1052	2.1	0.3	1.4	2.00	25.9	6.09	0.06	131	28.55
CEN			1.6		1.51	19.4	6.08	0.06	130	28.35

Biological Samples Collected: None HA SCI RPS Algae ID LVS LVI Other:

SBIO ID Numbers: SBIO-ID: 78939 HA-ID: RPS-ID: Macrophyte-ID: 11099 LIMS#: 2031495

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	<u>SA8101020</u>	<u>4/11/18</u>	☒ <2
Metals	☐ W-ICPMS ☐ W-ICP	☐ Ice ☐ HNO3			☐ <2
Filtered Nutrients	☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter	☒ Ice	<u>13615055</u>		
Chlorophyll	☒ CHLSUITE-W	☒ Ice			
Physical/Aggregate (Fresh)	☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-CI-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-HF183 ☐ PCR-BacR ☐ PCR-GULL2 ☐ PCR-GFD	☐ Ice			
Tracers	☐ W-E8321-DI ☐ W-E8321-MS	☐ Ice			
Pesticides	☐ W-PSNP-TQ ☐ W-CT-CL-R ☐ W-E8321-DI ☐ W-PCL-SQ-R ☐ WE8321-MS ☐ W-CARB-AA	☐ Ice ☐ Other			

H2SO4
LOT# SA8101020
EXP: 04/11/2019

Place Preservative Sticker(s) Here
(If Available)

Notes:

Liberty Park
28.768736
-81.320517

WMSAMPSON 1951
@ YAHOO

WIN ID / Field ID →

East Crystal Lake @ Center
(2973C)



G2CE0110

Signature: _____

Date: _____

Enter Field Parameters, Verify Station ID in LIMS DMT: LMD 10/9/18

QC Station ID, Field Parameters in LIMS DMT: MKL 11/26/18

Scan/Save Field Sheets LMD 10/18/18

Migrate Data to WIN: _____

LMD 1/4/19

Verify Data in WIN: _____

DEP FORM FD 9000-31: LAKE OBSERVATION FIELD SHEET

SAMPLE ID: _____ MACROPHYTE ID: _____ LATITUDE: 28.77011589
COUNTY: Seminole STORET #: _____ LONGITUDE: -81.31428479
DATE: 10/03/18 TIME: 1052 SAMPLING AGENCY: FDEP-CEROC
SITE NAME: East Crystal Lake WBID: 2973C
FIELD ID/NAME: _____ LAKE SIZE: 96 Acre RQ: 2018-09-03-63

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>15</u>				<u>85</u>																	
Local Watershed Erosion (select one) : ☒ None ☐ Slight ☐ Moderate ☐ Heavy										Artificially Impounded											
Local Watershed NPS Pollution : ☒ No evidence ☐ Slight ☐ Moderate ☐ Heavy										☐ Yes ☐ No											
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>7</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>11</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>SA8101020</u> Exp. Date: <u>4/11/18</u> Alkalinity Sample Taken? ☒ Yes ☐ No Water Level ☐ Low ☒ Normal ☐ High								Water Odors: ☒ Normal ☐ Sewage ☐ Petroleum ☐ Other _____							
Meter Readings: Top: <u>0.3</u> <u>28.55</u> <u>6.09</u> <u>2.00</u> <u>25.9</u> <u>131</u> <u>0.06</u> Mid-Depth: _____ Bottom: <u>1.6</u> <u>28.35</u> <u>6.08</u> <u>1.51</u> <u>19.4</u> <u>130</u> <u>0.06</u> Meter ID: _____								Water Surface Oils: ☒ None ☐ Sheen/Slick ☐ Glob ☐ Other _____							
Sediment Type: (may check more than one) ☐ Sandy ☐ Organic fibrous (peaty, CPOM) ☐ Vegetated ☒ Sand/Silt ☐ Organic smooth (muck) ☐ Other (Specify): _____								Clarity: ☐ Clear ☐ Opaque ☐ Turbid ☒ Slightly Turbid 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>1.4</u> Total Station Depth (M) <u>2.1</u> VOB ☐							
Abundance: Absent Rare Common Abundant Periphyton ☐ ☐ ☒ ☐ Nuisance Plants ☐ ☐ ☒ ☐ Submersed Plants ☐ ☐ ☐ ☒ Exotic Apple Snails ☐ ☒ ☐ ☐								Sediment Odors: ☒ Normal ☐ Other (Specify): _____ ☐ Anaerobic							
Weather Conditions: <u>High 80's, breezy, patches of rain</u>															
SAMPLING TEAM: <u>Mike Linger / Mike Diemman</u>								SIGNATURE: <u>[Signature]</u>				DATE: <u>10/03/18</u>			

Waterbody: <u>East Crystal Lake</u>		County: <u>Seminole</u>		Date: <u>10/13/18</u>									
Analyst: <u>Mike Linger / Mike Drennan</u>		Signature: <u>[Signature]</u>		STORET: <u>G2CE0110</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.													
SPECIES		1	4	7	10	Collected? (✓)	SPECIES		1	4	7	10	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						
Cyrilla 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 baldwinii							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													

FORM FD 9000-27: LAKE VEGETATION INDEX FIELD SHEET

Site: <u>East Crystal Lake @ Center</u>					Date: <u>10/3/18</u>						
SPECIES	1 4 7 10				Collected? (✓)	SPECIES	1 4 7 10				Collected? (✓)
	<u>LMD</u> 3	6	9	12			<u>LMD</u> 3	6	9	12	
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 herbacea</i>					
<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>					
Panicum repens						<i>Thelypteris palustris</i>					
<i>Paspalidium geminatum</i>						<i>Triadenum virginicum</i>					
* <i>Paspalum repens</i>						<i>Typha</i> sp.					
<i>Paspalum urvillei</i>						Urochloa mutica (<i>Brachiaria mutica</i>)					
<i>Peltandra</i> sp.						* <i>Utricularia gibba</i> (<i>U. biflora</i>)					
<i>Persea</i> sp.						* <i>Utricularia foliosa</i>					
Pennisetum purpureum						* <i>Utricularia inflata</i>					
<i>Phragmites australis</i>						* <i>Utricularia purpurea</i>					
<i>Pinus elliotii</i>						* <i>Utricularia radiata</i>					
Pistia stratioides						* <i>Utricularia resupinata</i>					
<i>Pluchea</i> sp.						<i>Vallisneria americana</i>					
* <i>Polygonum glabrum</i> (<i>densiflorum</i>)						<i>Vitis</i> sp.					
<i>Polygonum hirsutum</i>						* <i>Websteria confervoides</i>					
* <i>Polygonum hydropiperoides</i>						Wedelia trilobata (<i>Sphagneticola trilobata</i>)					
* <i>Polygonum punctatum</i>						<i>Wolffiella</i> spp.					
* <i>Polygonum</i>						<i>Woodwardia virginica</i>					
<i>Pontederia cordata</i>						<i>Xyris</i> sp.					
* <i>Potamogeton diversifolius</i>						<i>Zizania aquatica</i>					
* <i>Potamogeton illinoensis</i>						<i>Zizaniopsis milacea</i>					
* <i>Potamogeton pusillus</i>						<i>Rhynchospora microcephala</i>					
* <i>Potamogeton pectinatus</i> (<i>Stuckenia pectinatus</i>)						<i>Juncus</i> ^{<i>Rhynchospora</i>} <i>tracyi</i>					
<i>Proserpinaca pectinata</i>						<i>Juncus</i> <i>pumilus</i>					
* <i>Rhexia</i>						<i>Rhynchospora scirpoides</i>					
* <i>Rhynchospora corniculata</i>						<i>Mitrella sessiliflora</i>					
* <i>Rhynchospora inundata</i>						<i>Juncus</i> ? <i>Rhynchospora</i> <i>canadensis</i>					
<i>Rhynchospora nitens</i>						<i>Vitis</i>					
<i>Ricciocarpus natans</i>						<i>Utricularia lobata</i>					
<i>Sabal palmetto</i>						<i>Phyla nodiflora</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>											

East Crystal Lake Z3-LL12007

