

LVI

Site Name Lake Pearl Sample Date 5/6/19

WBID 3009J WIN ID G2CEC192 RQ 2019-05-06-50

	Initial/Date	QC Initial/Date
Water chemistry data to LIMS	KWM MAY 14 2019	NA 05/24/2019
Create SBIO station visit	KWM MAY 17 2019	n/a
Vascular Entry (add LIMS ID)	KWM MAY 20 2019	NA 5/24/2019
Lake Observation Sheet Entry	KWM MAY 20 2019	NA 5/24/2019
Authorize SBIO data	NA 5/24/2019	n/a
Scan all sheets to 21FLCEN folder		n/a
LIMS/WIN migration		n/a
File in cabinet		n/a

Comments/notes:



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STRATEGIC MONITORING PROGRAM FIELD SHEET

Data Qualified?
Yes / No

January 2019

WIN Station Name: Lake Pearl at Center

Date: 05/06/2019

WIN/ Field ID: G2CE0192

WBID: 3009J

Latitude: 28.604514

(mm/dd/yyyy)

County: Orange

ORG ID: 21FLCEN

Longitude: -81.264114

(Decimal Degrees)

Receiving Body of Water: _____

RQ-2019- 05-06-50

Sampling Team Members				WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
Natalie Ayala				☒	☒	☒	☒	☒
Katie March				☒	☒	☒	☒	☒

Sampling Equipment			
☒ Sample Container	☐ Van Dorn	☐ Pole	
☐ Carboy	☒ Syringe		
☐ Dipper	☐ Other		
Depth Measured with <u>Secchi Disk Line</u> / Meter			
Equipment ID <u>Leadfoot, Knothead, Crusty/Bucket, Mucky/Trap</u>			

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

Water Level: Dry/ Pooled/ Low / <u>Normal</u> / High / Flooded				Meter ID# <u>Scud / Bucket</u>				Matrix: <u>Fresh</u> / Marine / DI							
Photos: <u>Yes</u> / No				Flow: No Flow / Intestinal / Flowing / <u>NA</u>				Tide: Rising/ Falling/ Slack/ <u>NA</u>				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 (umhos/cm)	Temp. (C°)					
<u>EST</u>	<u>1235</u>	<u>2.5</u>	<u>0.3</u>	<u>1.0</u>	<u>7.92</u>	<u>101.5</u>	<u>7.28</u>	<u>0.07</u>	<u>143.7</u>	<u>28.1</u>					
<u>CEN</u>			<u>2.0</u>		<u>7.91</u>	<u>100.1</u>	<u>7.23</u>	<u>0.07</u>	<u>143.7</u>	<u>27.4</u>					

Biological Samples Collected: None HA SCI RPS Algae ID LVS <u>LVI</u> Other:			
SBIO ID Numbers: SBIO-ID: <u>79608</u> HA-ID: RPS-ID: <u>W/A</u> Macrophyte ID: <u>4303</u> LIMS#: <u>2083713</u>			

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			☒ <2
Metals	☒ W-ICPMS ☒ W-ICP	☒ Ice ☒ HNO3			☒ <2
Filtered Nutrients	☒ W-PD4-F ☒ Field Filtered 0.45 um Filter	☒ Ice	<u>13615055</u>		
Chlorophyll	☒ CHLSUITE-W	☒ Ice			
Physical/Aggregate (Fresh)	☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-CH-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-BacR ☐ PCR-GULL2 ☐ PCR-HF183 ☐ PCR-DG3 ☐ 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			
Phytoplankton	☐ DTY-QN-C ☐ PKD-QN-C	☐ Ice			

H2504
LOT# SA8344078
EXP: 12/10/2019

Place Preservative Sticker(s) Here
(If Available)

Notes:

Signature: K March

Date: 5/6/19

WIN ID / Field ID →

Lake Pearl @
Center



G2CE0192

LIMS EVENT ID: CEN-DIST-2019-05-07-01

Enter Field Parameters, Verify Station ID In LIMS DMT: KWM MAY 14 2019

QC Station ID, Field Parameters In LIMS DMT: NA 5/24/2019

Scan/Save Field Sheets

(Initials/Date)

Migrate Data to WIN:

(Initials/Date)

Verify Data In WIN:

(Initials/Date)

DEP FORM FD 9000-31: LAKE OBSERVATION FIELD SHEET

SAMPLE ID: 79608 MACROPHYTE ID: 11303 LATITUDE: _____
COUNTY: Orange STORET #: G2CE0192 LONGITUDE: _____
DATE: 5/6/19 TIME: _____ SAMPLING AGENCY: _____
SITE NAME: Lake Pearl WBID: 3009J LAKE SIZE: _____ RQ: 2019-05-06-50
FIELD ID/NAME: _____

WATERSHED / LAKESIDE FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category – from GIS) : Forest/Natural <u>5</u> Silviculture _____ Field/Pasture _____ Agricultural _____ Residential <u>95</u> Commercial _____ 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 <u>4</u>	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
LAKESIDE ALTERATIONS <u>3</u>	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
BUFFER ZONE <u>3</u>	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
					Much direct input of stormwater (ditches, pipes, cultivated vegetation > 51%) and no or ineffective BMPs in place 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 _____					
Meter Readings: Top: <u>0.3</u> <u>28.1</u> <u>7.28</u> <u>7.92</u> <u>101.5</u> <u>143.7</u> <u>0.07</u> Mid-Depth: _____ Bottom: <u>2.0</u> <u>27.4</u> <u>7.23</u> <u>7.91</u> <u>100.1</u> <u>143.7</u> <u>0.07</u>						Water Surface Oils: ☒ None ☐ Sheen/Slick ☐ Glob ☐ Other _____					
Meter ID: <u>SCUD/BUCKET</u>						Clarity: ☒ Clear ☐ Turbid ☐ Slightly Turbid ☒ Opaque					
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): <u>NOT OBSERVED</u>					
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:						Additional Notes:					
SAMPLING TEAM: <u>Katie March, Natalie Ayala</u>						SIGNATURE: <u>[Signature]</u>					
DATE: <u>5/6/19</u>											

DEP FORM FD 9000-27 LAKE VEGETATION INDEX FIELD SHEET

Waterbody: <u>Lake Pearl</u>		County: <u>Orange</u>		Date: <u>5/6/19</u>							
Analyst: <u>Angela March</u>		Signature: <u>[Signature]</u>		STORET: <u>GZCED1912</u>							
Except where noted as "sp." species level identification required. *Genera that may require lab verification* Plants in bold = FLEPPC invasive exotic.				Lake units sampled (circle one group): <u>1, 4, 7, 10</u> 2, 5, 8, 11 3, 6, 9, 12							
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					X	Fraxinus					
Alternanthera philoxeroides	X					Fuirena scirpoides					
Amaranthus australis						Gordonia lasianthus					X
Andropogon sp.	X					Habenaria repens					
Azolla filiculoides (A. caroliniana)						Hibiscus coccineus					
Baccharis sp.						Hibiscus grandiflora					
Bacopa caroliniana						Hydrilla verticillata					X
Bacopa monnieri						Hydrocotyle sp.	X	X			X
Bidens alba						Hygrophila polysperma					
Bidens laevis						Hymenocallis sp.					
Bidens mitis						*Hypericum fasciculatum					
Blechnum serrulatum						*Hypericum hypericoides					
Boehmeria cylindrica						*Hypericum myrtifolium					
Brasenia schreberi						Ilex cassine					X
Cabomba caroliniana						Ipomoea aquatica					
Canna			X			Ipomoea sagittata					
Centella asiatica						Itea virginica					
Cephalanthus occidentalis	X	X		X		Juncus effusus					
Ceratophyllum demersum	X	X				*Juncus marginatus					
Chara sp.						*Juncus megacephalus					
Cicuta maculata						Juncus repens					
Cinnamomum camphora						*Juncus scirpoides					
Cladium jamaicense		X		X		Lachnanthes caroliniana					
Colocasia esculenta		X		X		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		X	X		
Decodon verticillatus						Ludwigia (native)					
Diodia virginiana						*Ludwigia octovalvis					
*Echinochloa crus-galli						*Ludwigia peruviana	X	X	X		X
*Echinochloa muricatum						*Ludwigia repens					
Echinochloa walteri						Ludwigia suffruticosa					
Eclipta prostrata (E. alba)						Luziola fluitans (Hydrochloa carolinensis)					
Eichhornia crassipes						Magnolia virginiana					X
*Eleocharis						Mayaca fluviatilis					
Eleocharis cellulosa						Melaleuca quinquenervia					
*Eleocharis elongata						Micranthemum glomeratum					
Eleocharis equisetoides						Micranthemum umbrosum					
Eleocharis interstincta		X	X	X		Mikania scandens		X	X		
Eleocharis submersed viviparous	X	X	X	X		Mimosa pigra					
*Eriocaulon compressum						Myrica cerifera					X
*Eriocaulon decangulare											
Eupatorium capillifolium											

FORM FD 9000-27: LAKE VEGETATION INDEX FIELD SHEET

Site:						Date:					
SPECIES	1	4	7	10	Collected? (✓)	SPECIES	1	4	7	10	Collected? (✓)
Myriophyllum aquaticum						<i>Salix caroliniana</i>	X	X			
* <i>Myriophyllum heterophyllum</i>						<i>Salvinia minima</i>	X	X	X	X	
* <i>Myriophyllum laxum</i>						<i>Sambucus canadensis</i>					
* <i>Myriophyllum pinnatum</i>						<i>Sapium sebiferum</i>	X	X	X	X	
<i>Myriophyllum spicatum</i>						<i>Saururus cernuus</i>					
* <i>Najas filifolia</i>						<i>Schinus terebinthifolius</i>					
* <i>Najas guadalupensis</i>	X	X	X	X		* <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>)	X				
<i>Nuphar</i> sp.	X	X	X	X		<i>Scirpus cyperinus</i>					
<i>Nymphaea mexicana</i>						* <i>Sesbania</i>					
<i>Nymphaea odorata</i>	C	X	D	D		<i>Solidago</i> sp.					
<i>Nymphoides aquatica</i>	X	X	X	X		<i>Sparganium americanum</i>					
<i>Nyssa sylvatica</i> var. <i>biflora</i>	X	X		X		<i>Spartina bakeri</i>					
<i>Orontium aquaticum</i>						<i>Spirodela polyrhiza</i>					
<i>Osmunda cinnamomea</i>						<i>Taxodium</i> sp.	X	X		X	
<i>Osmunda regalis</i>						<i>Thalia geniculata</i>					
<i>Panicum hemitomon</i>						<i>Thelypteris interrupta</i>					
<i>Panicum repens</i>	X	X	X	X		<i>Thelypteris palustris</i>					
<i>Paspalidium geminatum</i>						<i>Triadenum virginicum</i>					
* <i>Paspalum repens</i>						<i>Typha</i> sp.	X	X	X	X	
<i>Paspalum urvillei</i>						<i>Urochloa mutica</i> (<i>Brachiaria mutica</i>)					
<i>Peltandra</i> sp.						* <i>Utricularia gibba</i> (<i>U. biflora</i>)	X				
<i>Persea</i> sp.						* <i>Utricularia foliosa</i>					
<i>Pennisetum purpureum</i>						* <i>Utricularia inflata</i>	X	X	X	X	
<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>				X	
* <i>Polygonum glabrum</i> (<i>densiflorum</i>)						<i>Vitis</i> sp.					
<i>Polygonum hirsutum</i>						* <i>Websteria confervoides</i>					
* <i>Polygonum hydropiperoides</i>						<i>Wedelia trilobata</i> (<i>Sphagneticola trilobata</i>)					
* <i>Polygonum punctatum</i>						<i>Wolffiella</i> spp.					
* <i>Polygonum</i>						<i>Woodwardia virginica</i>					
<i>Pontederia cordata</i>	X	X	X	X		<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>Ptil... ptilinivus capillareum</i>				X	
* <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>	X	X	X	X							
<i>Sagittaria latifolia</i>											

* could not determine extent of submersed vegetation in section 10 + 1

LVI Map for LAKE PEARL, WBID 3009J

