

LVI

Site Name Lake Aurora Sample Date 6/24/19

WBID G4CE012 WIN ID 1573 F RQ 2019-06-24-27

	Initial/Date	QC Initial/Date
Water chemistry data to LIMS	KWM JUL 03 2019	LB 07/05/19
Create SBIO station visit	KWM JUL 03 2019	n/a
Vascular Entry (add LIMS ID)	KWM JUL 03 2019	LB 07/05/19
Lake Observation Sheet Entry	KWM JUL 03 2019	LB 07/05/19
Authorize SBIO data	LB 07/05/19	n/a
Scan all sheets to 21FLCEN folder	LB 08/12/19	n/a
LIMS/WIN migration	LB 8/23/19	n/a
File in cabinet		n/a

Comments/notes:

8/14 14144



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2019

Data Qualified?
Yes / No

WIN Station Name: Lake Aurora @ Center of S Lobe

Date: 06/24/2019
(mm/dd/yyyy)

WIN/ Field ID: G4CE0172

WBID: 1573F

Latitude: 27.876488

County: Polk

ORG ID: 21FLCEN

Longitude: -81.466082

Receiving Body of Water:

RQ-2019- 06-24-27

Sampling Team Members				WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check	Sampling Equipment			
Leif Boman									☒ Sample Container	☐ Van Dorn	☐ Pole	
Katie March									☐ Carboy	☒ Syringe		
									☐ Dipper	☐ Other		
									Depth Measured with Secchi Disk Line Meter			
									Equipment ID Leadfoot/Knothead/Crusty/Bucket, Mucky/Trap			
									Collection Method			
									☐ Wading	☐ Canoe/Kayak		
									☐ From Shore	☐ Electric Motor		
									☐ Other	☒ Gasoline Motor		
Water Level: Dry/ Pooled/ Low/ Normal/ High / Flooded				Meter ID# Betty 67				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	1230		0.3		8.45	114.2	8.49	0.10	215	31.16		
CEN		11.0	7.0*	3.1	2.81	34.6	6.83	0.10	207	24.04		
Biological Samples Collected: None HA SCI RPS Algae ID LVS LVI Other:												
SBIO ID Numbers: SBIO-ID: 79904 HA-ID: RPS-ID: Macrophyte-ID: 11404 LIMS#: 2097920												
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-PO4-F ☒ Field Filtered 0.45 µm Filter				☒ Ice		13615055				
Chlorophyll		☒ CHLSUITE-W				☒ Ice						
Physical/Aggregate (Fresh)		☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-CL-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						

Notes:

* deepest meter coil could reach

WIN ID / Field ID →

Lake Aurora @ Center of S Lobe



G4CE0172

Signature: K March

Date: 6/24/19

LIMS EVENT ID: CENT-DIST-2019-06-25-01

Enter Field Parameters, Verify Station ID In LIMS DMT: KWM JUL 03 2019

QC Station ID, Field Parameters In LIMS DMT: LG 07/05/19

Scan/Save Field Sheets LG 08/12/19

Migrate Data to WIN: LMP 8/23/19

Verify Data In WIN: (Initials/Date)

DEP FORM FD 9000-31: LAKE OBSERVATION FIELD SHEET

SAMPLE ID: _____ MACROPHYTE ID: _____ LATITUDE: 27.876488
 COUNTY: Polk STORET #: G4CE0172 LONGITUDE: -81.466082
 DATE: 6/24/19 TIME: 1230 SAMPLING AGENCY: 2IFLEEN
 SITE NAME: Lake Amora WBID: 1573F
 FIELD ID/NAME: Lake Amora @ Center of S Lake LAKE SIZE: _____ RQ: 2019-06-24-27

WATERSHED / LAKESIDE FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category – from GIS) : <u>camp</u> Forest/Natural ☐ Silviculture ☐ Field/Pasture ☐ <u>10</u> Agricultural ☐ <u>70</u> Residential ☐ <u>60</u> Commercial ☐ Industrial ☐ Other (Specify) ☐ <u>10</u>						LANDSCAPE DEVELOPMENT INTENSITY (100 m buffer) LDI:														
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 <u>5</u>	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													
	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
LAKESIDE ALTERATIONS <u>5</u>	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)													
	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
BUFFER ZONE <u>5</u>	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													
	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 # _____ 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>31.16</u> <u>8.49</u> <u>8.45</u> <u>114.2</u> <u>215</u> <u>0.10</u> Mid-Depth: _____ Bottom: <u>7.0</u> <u>26.04</u> <u>6.83</u> <u>2.81</u> <u>34.6</u> <u>207</u> <u>0.10</u>						Water Surface Oils: ☒ None ☐ Sheen/Slick ☐ Glob ☐ Other _____					
Meter ID: <u>Betty 67</u>						Clarity: ☒ Clear ☐ Opaque ☐ Turbid ☐ Slightly Turbid Color: ☒ Clear ☐ Tannic ☐ Green					
Sediment Type: (may check more than one) ☒ Sandy ☐ Organic fibrous (peaty, CPOM) ☒ Vegetated <u>nitella</u> ☐ Sand/Silt ☐ Organic smooth (muck) ☐ Other (Specify): _____						SECCHI (M) <u>3.1</u> Total Station Depth (M) <u>11.0</u> VOB ☐					
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>hot & sunny</u>						Additional Notes:					
SAMPLING TEAM: <u>Leif Boman, Kette March</u>						SIGNATURE: <u>KMarch</u>					
DATE: <u>6/24/19</u>											

DEP FORM FD 9000-27 LAKE VEGETATION INDEX FIELD SHEET

Waterbody: <u>Lake Amora</u>		County: <u>Pork</u>		Date: <u>6/24/19</u>							
Analyst: <u>Katie Moss, Lief Roman</u>		Signature: <u>K. Moss</u>		STORET: <u>G4CE0172</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? (✓)
<i>Acer rubrum</i>						<i>Fraxinus</i>					
<i>Alternanthera philoxeroides</i>						<i>Fuirena scirpoides</i>					
<i>Amaranthus australis</i>						<i>Gordonia lasianthus</i>					
<i>Andropogon</i> sp.						<i>Habenaria repens</i>					
<i>Azolla filiculoides</i> (A. caroliniana)						<i>Hibiscus coccineus</i>					
<i>Baccharis</i> sp.						<i>Hibiscus grandiflora</i>					
<i>Bacopa caroliniana</i>						<i>Hydrilla verticillata</i>					
<i>Bacopa monnieri</i>						<i>Hydrocotyle</i> sp.					
<i>Bidens alba</i>						<i>Hygrophila polysperma</i>					
<i>Bidens laevis</i>						<i>Hymenocallis</i> sp.					
<i>Bidens mitis</i>						* <i>Hypericum fasciculatum</i>					
<i>Blechnum serrulatum</i>						* <i>Hypericum hypericoides</i>					
<i>Boehmeria cylindrica</i>						* <i>Hypericum myrtifolium</i>					
<i>Brasenia schreberi</i>						<i>Ilex cassine</i>					
<i>Cabomba caroliniana</i>						<i>Ipomoea aquatica</i>					
<i>Canna</i>						<i>Ipomoea sagittata</i>					
<i>Centella asiatica</i>						<i>Itea virginica</i>					
<i>Cephalanthus occidentalis</i>						<i>Juncus effusus</i>					
<i>Ceratophyllum demersum</i>						* <i>Juncus marginatus</i>					
<i>Chara</i> sp.						* <i>Juncus megacephalus</i>					
<i>Cicuta maculata</i>						<i>Juncus repens</i>					
<i>Cinnamomum camphora</i>						* <i>Juncus scirpoides</i> sp.					
<i>Cladium jamaicense</i>						<i>Lachnanthes caroliniana</i>					
<i>Colocasia esculenta</i>						<i>Leersia hexandra</i>					
* <i>Commelina</i>						<i>Landoltia punctata</i> (<i>Spirodela punctata</i>)					
<i>Crinum americanum</i>						<i>Lemna</i> sp.					
* <i>Cyperus alternifolius</i> (C. involucratus)						<i>Leucothoe racemosa</i> (<i>Eubotrys racemosa</i>)					
<i>Cyperus articulatus</i>						<i>Limnobia spongia</i>					
<i>Cyperus haspan</i>						<i>Limnophila sessiliflora</i>					
* <i>Cyperus lecontei</i>						<i>Liquidambar styraciflua</i>					
* <i>Cyperus polystachyos</i>						* <i>Ludwigia arcuata</i>					
* <i>Cyperus odoratus</i>						* <i>Ludwigia grandiflora</i>					
* <i>Cyperus surinamensis</i>						* <i>Ludwigia hexapetala</i>					
<i>Cyrilla racemiflora</i>						* <i>Ludwigia leptocarpa</i>					
<i>Decodon verticillatus</i>						<i>Ludwigia</i> (native)					
<i>Diodia virginiana</i>						* <i>Ludwigia octovalvis</i>					
* <i>Echinochloa crus-galli</i>						* <i>Ludwigia peruviana</i>					
* <i>Echinochloa muricatum</i>						* <i>Ludwigia repens</i>					
<i>Echinochloa walteri</i>						<i>Ludwigia suffruticosa</i>					
<i>Eclipta prostrata</i> (E. alba)						<i>Luziola fluitans</i> (<i>Hydrochloa carolinensis</i>)					
<i>Eichhornia crassipes</i>						<i>Magnolia virginiana</i>					
* <i>Eleocharis</i>						<i>Mayaca fluviatilis</i>					
<i>Eleocharis cellulosa</i>						<i>Melaleuca quinquenervia</i>					
* <i>Eleocharis elongata</i>						<i>Micranthemum glomeratum</i>					
<i>Eleocharis equisetoides</i>						<i>Micranthemum umbrosum</i>					
<i>Eleocharis interstincta</i>						<i>Mikania scandens</i>					
<i>Eleocharis submersa</i> viviparous						<i>Mimosa pigra</i>					
* <i>Eriocaulon compressum</i>						<i>Myrica cerifera</i>					
* <i>Eriocaulon decangulare</i>											
<i>Eupatorium capillifolium</i>											

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						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 (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 gibba (U. biflora)					
Persea sp.						*Utricularia foliosa					
Pennisetum purpureum						*Utricularia inflata					
Phragmites australis						*Utricularia purpurea					
Pinus elliotii						*Utricularia radiata					
Pistia stratioides						*Utricularia resupinata		✓	✓	✓	
Pluchea sp.						Vallisneria americana					
*Polygonum glabrum (densiflorum)						Vitis sp.					
Polygonum hirsutum						*Websteria confervoides					
*Polygonum hydropiperoides						Wedelia trilobata (Sphagneticola trilobata)					
*Polygonum punctatum						Wolffiella spp.					
*Polygonum						Woodwardia virginica					
Pontederia cordata						Xyris sp.					
*Potamogeton diversifolius						Zizania aquatica					
*Potamogeton illinoensis						Zizaniopsis milacea					
*Potamogeton pusillus											
*Potamogeton pectinatus (Stuckenia pectinatus)											
Proserpinaca pectinata											
*Rhexia											
*Rhynchospora corniculata											
*Rhynchospora inundata											
Rhynchospora nitens											
Ricciocarpus natans											
Sabal palmetto											
Sacciolepis striata											
*Sagittaria filiformis											
*Sagittaria graminea											
*Sagittaria isoetiformis											
Sagittaria lancifolia		✓	✓	✓							
Sagittaria latifolia		✓	✓	✓							

