FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

March 2017

PAGE 1 OF ____

Data Qualified? Yes / No

Location/STORET Station Name: Lake Irma @ Center Date: 8/28/17 (mm/dd/yyyy)

STORET # G2CE0104 WBID: 3017 Latitude: 28.590289 53 (Decimal Degrees)

County: Orange RQ - 2017-08-28-25 ORG ID: 21FLCEN Longitude: -81.26698175 (Decimal Degrees)

Receiving Body of Water: ____ Field ID: G2CE0104

Sampling Team Members	WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
Katie Williams	✓	✓	✓	✓	✓
Tina McIntyre (Orange Co.)					

Sampling Equipment
- ☑ Sample Container ☐ Van Dorn ☐ Pole
- ☐ Carboy ☑ Syringe
- ☐ Dipper ☐ Other ____
- Equipment ID ____

Collection Method
- ☐ Wading
- ☐ From Shore
- ☐ Other (note below)
- Via Boat: ☐ Canoe/Kayak ☑ Electric Motor ☐ Gasoline Motor

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

Meter ID# Betty 67 Photos: (Yes) / No

Matrix: (Fresh) / Marine / DI

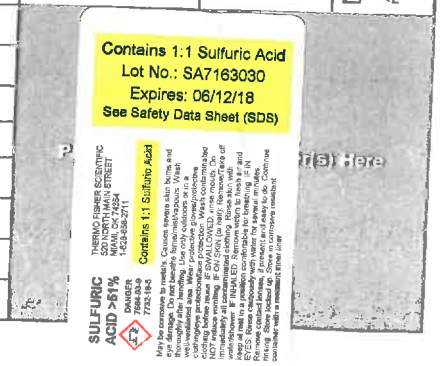
Tide Falling: Yes / No / (NA)

Time Zone	Time	Sample Depth (m)	Total Depth (m)	DO (mg/L)	DO (%SAT)	pH	Salinity (ppt)	Secchi Disk (m)	Sp COND (µmhos/cm)	Temp. (C°)
(EST)	1115	0.3	3.5	6.7	90	6.7	0.06	2.0	127	29.9
CEN		3.0		5.9	78	6.7	0.06		127	29.9

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

SBIO ID Numbers: SBIO-ID: 77884 RPS-ID: ~~10~~ n/a Macrophyte-ID: 101669 LIMS#: 1925909

Parameter Suite	Parameter Methods	Preservation	Acid Lot#	Expiration	pH Check
Preserved Nutrients	☑ W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP	☐ Ice ☑ H_2SO_4			☑ <2
Metals	☐ W-ICPMS ☐ W-ICP	☐ Ice ☐ HNO_3			☐ <2
Filtered Nutrients	☑ W-PO4-F ☑ Field Filtered 0.45 µm Filter	☐ Ice			
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-Q-LDC	☐ Formalin			
Periphyton	☐ ALGAE-ID	☐ Ice			
Microbiology	☐ E Coli ☐ F Coli ☐ Enterococci ☐ qPCR	☐ Ice			
Tracers	☐ W-SUC-AA-R ☐ W-UHERB-AA ☐ W-AHERB-AA	☐ Ice			
Pesticides	☐ W-PSNP-TQ ☐ W-AHERB-AA ☐ W-PYR-AA-R ☐ W-PCL-SQ-R ☐ W-UHERB-AA ☐ W-GLYPH ☐ W-SUC-AA-R	☐ Ice ☐ Other			



Notes: No photos, trying to get off lake before storm

Lake Irma @ Center

G2CE0104
Field ID ↑
STORET ↓
G2CE0104

RQ-2017-08-28-25
Date: 08/28/2017

Signature: K Williams Date: 8/28/17

Field Parameters Entered into LIMS: KMW 8/29/17 (Initials/Date) Field Parameters QC in LIMS: ____ (Initials/Date)

Date Migrated to STORET: ____ (Initials/Date) Field Sheets Scanned/Saved: ____ (Initials/Date)

DEP FORM FD 9000-27 LAKE VEGETATION INDEX FIELD SHEET

Waterbody: Lake Irma	County: Orange	Date: 8/28/17
Analyst: K. Williams, T. McIntyre	Signature: K Williams	STORET: 62(2)04

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	1	4	7	10	Collected? (√)
Acer rubrum	1		1	1	
Alternanthera philoxeroides				1	
Amaranthus australis					
Andropogon sp.					
Azolla filiculoides (A. caroliniana)					
Baccharis sp.	1		1		
Bacopa caroliniana					
Bacopa monnieri	1	1	1	1	
Bidens alba					
Bidens laevis					
Bidens mitis					
Blechnum serrulatum			1		
Boehmeria cylindrica					
Brasenia schreberi					
Cabomba caroliniana					
Canna			1		
Centella asiatica					
Cephalanthus occidentalis			1		
Ceratophyllum demersum					
Chara sp.					
Cinnamomum campgora					
Cladium jamaicense					
Colocasia esculenta	1	1	1	1	
*Commelina					
Crinum americanum					
***Cyperus alternifolius (C. involucratus)**					
Cyperus articulatus					
Cyperus haspan					
*Cyperus lecontei				1	
*Cyperus polystachyos	1	1		1	
*Cyperus odoratus	1	1	1	1	
*Cyperus surinamensis	1			1	
Cyrilla racemiflora					
Decodon verticillatus					
Diodia virginiana					
*Echinochloa crus-galli					
*Echinochloa muricatum					
Echinochloa walteri	1			1	
Eclipta prostrata (E. alba)		1			
Eichhornia crassipes					
*Eleocharis Submerged v.	1			1	√
Eleocharis cellulosa					
*Eleocharis elongata					
Eleocharis equisetoides					
Eleocharis interstincta	1				
Eleocharis submersed viviparous					
*Eriocaulon compressum					
*Eriocaulon decangulare					
Eupatorium capillifolium	1	1	1	1	
Fraxinus					

SPECIES	1	4	7	10	Collected? (√)
Fuirena scirpoides					
Gordonia lasianthus			1	1	
Habenaria repens					
Hibiscus coccineus			1		
Hibiscus grandiflora					
Hydrilla verticillata					
Hydrocotyle sp.	1	1		1	
Hygrophila polysperma					
Hymenocallis sp.					
*Hypericum fasciculatum					
*Hypericum hypericoides					
*Hypericum myrtifolium					
Ilex cassine			1		
Ipomoea aquatica					
Ipomoea sagittata					
Itea virginica					
Juncus effusus					
*Juncus marginatus					
*Juncus megacephalus					
Juncus repens					
*Juncus scirpoides					
Lachnanthes caroliniana					
Leersia hexandra					
Landoltia punctata (Spirodela punctata)					
Lemna sp.	1	1		1	
Leucothoe racemosa (Eubotrys racemosa)					
Limnobium spongia					
Limnophila sessiliflora					
Liquidamber styraciflua					
*Ludwigia arcuata					
Ludwigia hex-grand-uruguayensis complex**					
*Ludwigia leptocarpa	1			1	
Ludwigia (native)					
*Ludwigia octovalvis	1	1	1	1	
***Ludwigia peruviana**	1		1		
*Ludwigia repens					
Ludwigia suffruticosa					
Luziola fluitans (Hydrochloa carolinensis)					
Magnolia virginiana			1	1	
Mayaca fluviatilis					
Melaleuca quinquenervia					
Micranthemum glomeratum					
Micranthemum umbrosum					
Mikania scandens	1	1	1		
Mimosa pigra					
Myrica cerifera	1		1		
Vigna luteola	1				
Urena? pumila	1			1	X

**Enter in SBIO as Ludwigia (unknown nativity) and note in comments that it was the hexapetala-grandiflora-uruguayensis complex

FORM FD 9000-27: LAKE VEGETATION INDEX FIELD SHEET

Site: LAKE Frma | Date: 8/28/17

SPECIES	1	4	7	10	Collected? (√)
Myriophyllum aquaticum					
*Myriophyllum heterophyllum					
*Myriophyllum laxum					
*Myriophyllum pinnatum					
Myriophyllum spicatum					
*Najas filifolia					
*Najas guadalupensis					
*Najas minor					
Nelumbo lutea					
Nitella spp.					
Nuphar sp.	1	1	1	1	
Nymphaea mexicana					
Nymphaea odorata					
Nymphoides aquatica					
Nyssa sylvatica var. biflora			1		
Orontium aquaticum					
Osmunda cinnamomea					
Osmunda regalis					
Panicum hemitomon					
Panicum repens	D	D	1	D	
Paspalidium geminatum					
*Paspalum repens					
Paspalum urvillei					
Peltandra sp.					
Persea sp.					
Pennisetum purpureum					
Phragmites australis					
Pinus elliottii					
Pistia stratioides					
Pluchea sp.					
*Polygonum glabrum (densiflorum)					
Polygonum hirsutum					
*Polygonum hydropiperoides					
*Polygonum punctatum	1		1		X
*Polygonum lapathifolium	1	1	1	1	X
Pontederia cordata	1	1	1	1	
*Potamogeton diversifolius					
*Potamogeton illinoensis					
*Potamogeton pusillus					
*Potamogeton pectinatus (Stuckenia pectinatus)					
Proserpinaca pectinata					
*Rhexia					
*Rhynchospora corniculata					
*Rhynchospora inundata					
Rhynochospora nitens					
Ricciocarpus natans					
Sabal palmetto					
Sacciolepis striata					
*Sagittaria filiformis					
*Sagittaria graminea					
*Sagittaria isoetiformis					
Sagittaria lancifolia	1	1	1	1	
Sagittaria latifolia					

SPECIES	1	4	7	10	Collected? (√)
Salix caroliniana	1		1		
Salvinia minima					
Sambucus canadensis			1		
Sapium sebiferum					
Saururus cernuus					
Schinus terebinthifolius		1			
*Schoenoplectus californicus					
*Schoenoplectus pungens					
*Schoenoplectus tabernaemontani (Scirpus validus)					
Scirpus cubensis (Oxycaryon cubense)					
Scirpus cyperinus					
*Sesbania long skinny pods herbacea	1	1		1	
Solidago sp.					
Sparganium americanum					
Spartina bakeri					
Spirodela polyrhiza					
Taxodium sp.	1	1	1		
Thalia geniculata	1		1		
Thelypteris interrupta					
Thelypteris palustris					
Triadenum virginicum					
Typha sp.	1	1	1		
Urochloa mutica (Brachiaria mutica)					
*Utricularia gibba (U. biflora)					
*Utricularia foliosa					
*Utricularia inflata					
*Utricularia purpurea					
*Utricularia radiata					
*Utricularia resupinata					
Vallisneria americana	1				
Vitis sp.					
*Websteria confervoides					
Wedelia trilobata (Sphagneticola trilobata)	1	1		1	
Wolffiella spp.					
Woodwardia virginica					
Xyris sp.					
Zizania aquatica					
Zizaniopsis milacea					
Camphor	1	1			
Cyperus papayrus	1				
Vitis	1	1	1		
Eupatorium sp. album	1				✓
sesbania red flower	1				
Nephrolepis			1		
Comelina sp			1		1
punicea					
little to NO submerged					
many mussels + clams					

DEP FORM FD 9000-31: LAKE OBSERVATION FIELD SHEET

SAMPLE ID: _____ MACROPHYTE ID: _____ LATITUDE: _____

COUNTY: Orange STORET #: GLEE0104 LONGITUDE: _____

DATE: 8/28/17 TIME: _____ SAMPLING AGENCY: _____

SITE NAME: Lake Lima WBID: 3017

FIELD ID/NAME: _____ LAKE SIZE: _____ RQ: 2017-08-28-25

WATERSHED / LAKESIDE FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category – from GIS) :

Forest/Natural	Silviculture	Field/Pasture	Agricultural	Residential	Commercial	Industrial	Other (Specify)
15				85			

LANDSCAPE DEVELOPMENT INTENSITY (100 m buffer)

LDI: _____

Land Use Source & Year:

Local Watershed Erosion (select one) : ☐ None ☒ Slight ☐ Moderate ☐ Heavy

Local Watershed NPS Pollution : ☐ No evidence ☐ Slight ☒ Moderate ☐ Heavy

Artificially Impounded ☐ Yes ☐ No

STORMWATER INPUTS 3	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	Much direct input of stormwater (ditches, pipes, cultivated vegetation > 51%) and no or ineffective BMPs in place 5 4 3 2 1
LAKESIDE ALTERATIONS 3	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	Highly developed or disturbed (>70% of lakeside affected) 5 4 3 2 1
BUFFER ZONE 4	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	< 29% of shoreline with >18m buffer 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 _____

Water Surface Oils: ☒ None ☐ Sheen/Slick ☐ Glob ☐ Other _____

Meter Readings:

	Depth (M)	Temp. (°C)	pH (SU)	D.O. (MG/L)	D.O. Sat. (%)	Cond. (UMHO/CM)	Salinity (PPT)
Top:	0.3	29.9	6.7	6.7	90	127	0.06
Mid-Depth:							
Bottom :	3.0	29.9	6.7	5.9	78	127	0.06

Meter ID: Betty 67

Clarity: ☒ Clear ☐ Opaque ☐ Turbid ☐ Slightly Turbid

Color: ☐ Clear ☒ Tannic ☐ Green

SECCHI (M) 2.0 VOB ☐

Total Station Depth (M) 3.5

Sediment Type: (may check more than one)

☒ Sandy ☒ Organic fibrous (peaty, CPOM) ☐ Vegetated

☒ Sand/Silt ☐ Organic smooth (muck) ☐ Other (Specify):_____

Sample Taken? ☐ Yes ☐ No

Sediment Odors:

☐ Normal ☐ Other (Specify): _____

☐ Anaerobic

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	☐	☐	☐	☒

Additional Notes:

Weather Conditions : Windy, very overcast, imminent storm

SAMPLING TEAM: Katie Williams, Tina McIntyre (Orange Co.)

SIGNATURE: K Williams

DATE: 8/28/17

Lake Irma, 3017

12/1	28.594058, -81.266681
1/2	28.594972, -81.263527
2/3	28.594486, -81.262114
3/4	28.591699, -81.263239
4/5	28.590288, -81.264210
5/6	28.588013, -81.262608
6/7	28.587348, -81.265216
7/8	28.588820, -81.268216
8/9	28.588526, -81.270941
9/10	28.590826, -81.270700
10/11	28.593161, -81.268646
11/12	28.591665, -81.267455