



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

STRATEGIC MONITORING PLAN FIELD SHEET

January 2022

Meter Passed End

of Day CCV

☒ Yes / ☐ No

WIN Station Name: Lake Irma @ Center

Date: 5/23/2022

WIN/Field ID: G2CE0104

WBID: 3017

ENR: -

Latitude: 28.59029

County: ORANGE

Org ID: 21FLCEN

Longitude: -81.26698

Receiving Body of Water: -

RQ: 2022-05-23-19

Sampling Team Members		WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
☒	Leif Boman		x		x	x
☒	Victoria Schwartz	x		x		
☐						
☐						

Sampling Equipment	
☒ Sample Container	☐ Carboy
☐ Dipper	☐ Van Dorn
☒ Syringe	☐ Pole
Depth measured with: Secchi	
Secchi Equipment ID: Knothead	
Collection Method	
☐ Wading	☐ Canoe/Kayak
☐ From Shore	☐ Electric Motor
☐ Other	☒ Gasoline Motor

Water Level: ☒ Normal ☐ Low ☐ High ☐ Dry ☐ Pooled ☐ Flooded						Meter ID# CRAW DADDY			
Photos: YES		Flow: NA		Tide:		Tide Times: High: Low:			
Biological Samples Collected: ☐ None ☐ HA ☐ SCI ☐ RPS ☐ Algae ID ☐ LVS ☒ LVI Other:									
SBIO ID Numbers: SBIO 84193		MACROPHYTE 12138				LIMS 2329409			
Notes: SUNNY									

Duplicate Sample

Time Zone: EST	Time:	Field ID: N/A	(WIN ID_DUP)
WIN DMT Activity ID:			

Blank

Time Zone:	Time:	Field ID:	(Blank Type_DDMMYYYY)
DI Source:	Location:		
DI Type:	Equipment ID:		
DI Container (Name/ID):		DI Container Type:	

LIMS EVENT ID: CEN-DIST-2022-05-24-01

WIN Import ID: 33745

Enter Field Parameters, Verify Station ID In LIMS DMT: KWM 5/24/22

QC Station ID, Field Parameters In LIMS DMT: EB 6/17/22

(Initials/Date)

(Initials/Date)

Scan/Save Field Sheets KWM 6/21/22

Migrate Data to WIN: KWM 6/21/22

Verify Data In WIN:

(Initials/Date)

(Initials/Date)

(Initials/Date)



RQ-2022-05-23-19
Customer: CEN-DIST
Project ID: STRATEGIC MONITORING PLAN

Collected By: Leif Boman, Victoria Schwartz
Field Report Prepared By: Leif Boman
Sampling Agency: FDEP

Place Label Here WIN ID/Field ID: G2CE0104 Location: Lake Irma @ Center						Comments:				
Matrix: Fresh						(Check one) ☒ GRAB ☐ COMPOSITE				
Date	Time	DO (mg/L)	DO (%SAT)	Temp. (C°)	pH	Sample Depth (m)	Secchi Disk (m)	Total Depth (m)	Sp COND (µmhos/cm)	Salinity (PPTH)
5/23/2022	1215 EST	7.54	98.3	29.1	7.4	0.3	3.2 ☐ VOB (S)	4.6	146.9	0.07
	1221	7.52	97.1	28.6	7.4	2.0	Central Lab please use top row for login purposes		147	0.07
	1224 EST	6.26	79.8	27.8	6.9	4.1			146.4	0.07
Parameter Suite		Parameter Methods				Preservation		pH Check	# Bottles sent to Lab	Bottle Group
Preserved Nutrients (P-500ML)		☒ W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP				☒ Ice ☒ H2SO4*		☐ <2	1	A
		Lot #	SA130873		Exp:	11/17/22				
Metals (P-500ML)		☒ W-ICPMS ☒ W-ICP ☒ W-HARD				☒ Ice ☐ HNO3*		☒ <2	1	A
		Lot #	NA1286110		Exp:	11/16/22				
Filtered Nutrients (P125ML)		☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter				☐ Ice			1	A
		Filter Lot #	17413308			Syringe Lot #	1335260			
BOD (BP-1L)		☐ OV-BODUNIN				☐ Ice				
Chlorophyll (BP-1L)		☒ CHLSUITE-W				☒ Ice			1	A
Physical/Aggregate (Fresh) (P-1L)		☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-CL-IC / W-COLOR / W-SO4-IC / W-TDS				☒ Ice			1	A
Physical/Aggregate (Marine) (P-1L)		☐ Alkalinity / W-F / W-TSS / TURBIDITY				☐ Ice				
Macroinvertebrates (PJ-2L)		☐ MI-FW-QLDC				☐ Formalin				
Periphyton (PT-50ML)		☐ ALGAE-ID				☐ Ice				
Microbiology (Contract Lab Bottle)		☐ E Coli ☐ F Coli ☐ Enterococci ☐ Contract Lab				☐ Ice				
Molecular (QPCR-P-500ML)		☐ PCR-HF183 ☐ PCR-BacR ☐ PCR-DG3 ☐ PCR-GULL2 ☐ PCR-GFD ☐				☐ Ice				
Tracers (BG-500ML)		☐ W-E8321-DI ☐ W-E8321-MS				☐ Ice		MCAA Exp.		
Pesticides (BG-500ML) (BG-1L)		☒ W-E8321-DI	☒ WE8321-MS	☒ W-PSNP-TQ		W-CT-CL-R	☒ Ice	MCAA Lot#	5	A
		W-PCL-TQ-R	W-CARB-AA (5 ml of MCAA** Buffer Solution)		☒ W-TR-SQ-R					
		W-PCB-TQ-R								
Phytoplankton/Periphyton				DTY-QN-C		PKD-QN-C	☐ Ice			
Name: Leif Boman Victoria Schwartz				Signature:					Date: 05/23/2022	

*2.0 ml of Preservative used unless noted otherwise.

**MCAA: Monochloroacetic acid buffer solution

DEP FORM FD 9000-31: LAKE OBSERVATION FIELD SHEET

SAMPLE ID: _____ MACROPHYTE ID: _____ LATITUDE: 28.59029
COUNTY: Orange STORE # GACE0104 LONGITUDE: -81.26698
DATE: 5/23/22 TIME: _____ SAMPLING AGENCY: 21FLCEN
SITE NAME: Lake Irma @ Center WBID: 3017
FIELD ID/NAME: GACE0104 LAKE SIZE: _____ RQ: 2022-05-23-19

WATERSHED / LAKESIDE FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category – from GIS) : Forest/Natural <u>10</u> Silviculture _____ Field/Pasture _____ Agricultural _____ Residential <u>90</u> Commercial _____ Industrial _____ Other (Specify) _____				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>8</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>7</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>10</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 # <u>SA130873</u> Exp. Date: <u>11/17/22</u> Alkalinity Sample Taken? ☒ Yes ☐ No Water Level ☐ Low ☒ Normal ☐ High								Water Odors: ☒ Normal ☐ Sewage ☐ Petroleum ☐ Other _____							
Meter Readings: Depth (M) Temp. (°C) pH (SU) D.O. (MG/L) D.O. Sat. (%) Cond. (UMHO/CM) Salinity (PPT) Top: <u>0.3</u> <u>29.1</u> <u>7.4</u> <u>7.54</u> <u>98.3</u> <u>146.9</u> <u>0.07</u> Mid-Depth: <u>2.0</u> <u>28.6</u> <u>7.4</u> <u>7.52</u> <u>97.1</u> <u>147</u> <u>0.07</u> Bottom: <u>4.1</u> <u>27.8</u> <u>6.9</u> <u>6.26</u> <u>79.8</u> <u>146.4</u> <u>0.07</u>								Water Surface Oils: ☒ None ☐ Sheen/Slick ☐ Glob ☐ Other _____							
Clarity: ☒ Clear ☐ Opaque ☐ Turbid ☐ Slightly Turbid Color: ☒ Clear ☐ Tannic ☐ Green								SECCHI (M) <u>3.2</u> Total Station Depth (M) <u>4.6</u>							
Sediment Type: (may check more than one) ☐ Sandy ☐ Organic fibrous (peaty, CPOM) ☐ Vegetated ☐ Sand/Silt ☐ Organic smooth (muck) ☐ Other (Specify): _____								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: <u>Sunny</u>															
SAMPLING TEAM: <u>Leif Boman + Victoria Schwab</u>								SIGNATURE: <u>[Signature]</u> DATE: <u>5/23/22</u>							

Leif Boman

DEP FORM FD 9000-27 LAKE VEGETATION INDEX FIELD SHEET

Waterbody: <u>Lake Irma</u>	County: <u>Orange</u>	Date: <u>5/23/22</u>									
Analyst: <u>Ferry Boman + Victoria Schwartz</u>	Signature: <u>[Signature]</u>	STORE: <u>62CE0104</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 <u>spp.</u>	/	/	/	/	✓	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 <u>spp. → interstincta</u>	/	/	/	/	✓	Magnolia virginiana					
Eleocharis cellulosa						Mayaca fluviatilis					
*Eleocharis elongata						Melaleuca quinquenervia <u>viminialis</u>					
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>Lake Irma</u>					Date: <u>5/23/22</u>						
SPECIES	3	6	9	12	Collected? (✓)	SPECIES	3	6	9	12	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>					
<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 polyrrhiza</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 punctatum</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>Banana</i> → <i>Musa</i>	/	/	/	/	
* <i>Rhynchospora corniculata</i>						<i>Ludwigia</i> spp.	/	/	/	/	
* <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 WBID 3017, LAKE IRMA

