



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

STRATEGIC MONITORING PLAN Field Sheet

July 2022

Meter
Passed End
of Day CCV

Yes / No

WIN Station Name:	LAKE IRMA AT CENTER				Sample Date:	6/27/2023	
WIN / Field ID:	G2CE0104	ORG ID:	21FLCEN	ENR:	-	Latitude:	28.59029
County:	ORANGE	WBID:	3017	LAKE		Longitude:	-81.266982
Receiving Body of Water:	-				RQ-	2023-06-19-24	

Sampling Team Members	WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
Leif Boman		x		x	x
Jessie Atchison	x		x		

Sampling Equipment			
x	Sample Container		Carboy
	Dipper		Van Dorn
x	Syringe		Pole
Syringe Lot#	2298556	Filter Lot#	17769663
Secchi Equipment ID:	Light		
Collection Method			
	Wading		Canoe/Kayak
	From Shore		Electric Motor
		x	Gasoline Motor
Depth Measured With	Secchi		

Water Level:	Normal
Flow:	NA
Matrix:	Fresh
Tide Stage:	
High Tide:	
Low Tide:	
Photos:	Yes
Meter ID:	Shrimp Trap
Depth Gauge ID:	depth_gauge

Time Zone	Time	Total Depth (m)	Sample Depth (m)	DO (mg/L)	DO (%SAT)	Temp. (°C)	pH	Secchi Disk (m)	Sp COND (µmhos/cm)	Salinity (PPTth)
EST	1033	4.2	0.3	7.99	105.9	30	6.77	2	135.5	0.06
	1040		2	7.5	98.5	29.6	7.33		135.5	0.06
	1042		3.7	3.31	42.1	28.1	7.21		134.7	0.06

Biological Samples Collected: None

SBIO Visit ID: 87429 HA ID: RPS ID: Macrophyte ID: 12511 LIMS Sample ID 2420236
In The Macrophyte Module:

Parameter Suite	Parameter Methods (LIMS Test Codes)			Preservation			
	Type	Lot#	Expiration Date	pH Check			
Microbiology							
Chlorophyll	CHLSUITE-W			ICE			
Physical/Aggregate	ALKALINITY, TURBIDITY, W-F, W-TSS			ICE			
Nutrients	W-CL-IC, W-COLOR, W-SO4-IC, W-TDS			ICE			
Filtered Nutrients	W-PO4-F	Field Filtered 0.45 µm Filter		ICE	Syringe Lot#:2298556; Filter Lot#:17769663		
Acid Preserved Nutrients	W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP			ICE	H2SO4*	SA3013020	01/25/2024
Metals	W-ICPMS	W-ICP	W-HARD	ICE	HNO3**	NA2230040	09/01/2023
Organics (LC)	W-E8321-DI	W-E8321-MS			MCAA***		
Macroinvertebrates							
Organics (GC)	W-PSNP-TQ	W-TR-SQ-R		Ice	*2.0 ml of H2SO4 Used Unless Noted Otherwise **2.0 ml of HNO3 Used Unless Noted Otherwise		
Molecular							
Periphyton							
Phytoplankton							
BOD							
DOC							
Other(s)							
Field Comments:	80 and sunny						
Comments on COC:							
Relinquish Date:	06/27/2023	Signature:					

LIMS EVENT ID: CEN-DIST-2023-06-28-02

WIN Import ID: 41945

Enter Field Parameters, Verify Station ID In LIMS DMT: KWM 7/27/23

QC Station ID, Field Parameters In LIMS DMT: VLS 8/2/23

Save Field Sheets on Network: KWM 8/3/23 (Initials/Date)

Migrate Data to WIN: KWM 8/3/23 (Initials/Date)

DEP FORM FD 9000-31: LAKE OBSERVATION FIELD SHEET

SAMPLE ID: _____ MACROPHYTE ID: _____ LATITUDE: 28.59029
 COUNTY: Orange STORET #: G2CE0104 LONGITUDE: -81.266982
 DATE: 6/27/23 TIME: 10:33 SAMPLING AGENCY: DEP
 SITE NAME: Lake Irma WBID: 3017
 FIELD ID/NAME: Lake Irma at Center LAKE SIZE: _____ RQ: 2023-06-19-24

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>25</u>				<u>75</u>			
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		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	
<u>8</u>		20 19 18 17 16		15 14 13 12 11		10 9 8 7 6	
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)	
<u>5</u>		20 19 18 17 16		15 14 13 12 11		10 9 8 7 6	
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	
<u>7</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>SA303020</u> Exp. Date: <u>1/25/24</u> 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: Top: <u>0.3</u> <u>30</u> <u>6.77</u> <u>7.99</u> <u>105.9</u> <u>135.5</u> <u>0.06</u> Mid-Depth: <u>2.0</u> <u>29.6</u> <u>7.33</u> <u>7.5</u> <u>98.5</u> <u>135.5</u> <u>0.06</u> Bottom: <u>3.7</u> <u>28.1</u> <u>7.21</u> <u>3.31</u> <u>42.1</u> <u>135.7</u> <u>0.06</u>				Clarity: ☒ Clear ☐ Opaque ☐ Turbid ☐ Slightly Turbid Color: ☒ Clear ☐ Tannic ☐ Green																												
Meter ID: _____				SECCHI (M) <u>2.0</u> Total Station Depth (M) <u>4.2</u> VOB ☐																												
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): _____																												
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: <table border="1"> <thead> <tr> <th></th> <th>Absent</th> <th>Rare</th> <th>Common</th> <th>Abundant</th> </tr> </thead> <tbody> <tr> <td>Periphyton</td> <td>☐</td> <td>☒</td> <td>☐</td> <td>☐</td> </tr> <tr> <td>Nuisance Plants</td> <td>☐</td> <td>☐</td> <td>☒</td> <td>☐</td> </tr> <tr> <td>Submersed Plants</td> <td>☐</td> <td>☐</td> <td>☐</td> <td>☒</td> </tr> <tr> <td>Exotic Apple Snails</td> <td>☐</td> <td>☐</td> <td>☒</td> <td>☐</td> </tr> </tbody> </table>					Absent	Rare	Common	Abundant	Periphyton	☐	☒	☐	☐	Nuisance Plants	☐	☐	☒	☐	Submersed Plants	☐	☐	☐	☒	Exotic Apple Snails	☐	☐	☒	☐
	Absent	Rare	Common	Abundant																												
Periphyton	☐	☒	☐	☐																												
Nuisance Plants	☐	☐	☒	☐																												
Submersed Plants	☐	☐	☐	☒																												
Exotic Apple Snails	☐	☐	☒	☐																												

Weather Conditions :

80% sunny
 SAMPLING TEAM: Jessie Atchison SIGNATURE: Jessie Atchison DATE: 6/27/23

DEP FORM FD 9000-27 LAKE VEGETATION INDEX FIELD SHEET

Waterbody: <u>Lake Irma</u>		County: <u>Orange</u>		Date: <u>6/27/23</u>							
Analyst: <u>Jessie Atchison & Leif Boman</u>		Signature: <u>[Signature]</u>		STORET: <u>PACE0104</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 3, 6, 9, 12							
SPECIES	1	4	7	10	Collected? (✓)	SPECIES	1	4	7	10	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						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						Magnolia virginiana					
Eleocharis cellulosa <u>Plant ID# 3</u>	/	/			(4) 00	Mayaca fluviatilis					
*Eleocharis elongata						Melaleuca quinquenervia					
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>6/27/23</u>						
SPECIES	1	4	7	10	Collected? (✓)	SPECIES	1	4	7	10	Collected? (✓)
Myriophyllum aquaticum						<i>Salix caroliniana</i>	/	/	/		
* <i>Myriophyllum heterophyllum</i>						<i>Salvinia minima</i>	/	/	/		
* <i>Myriophyllum laxum</i>						<i>Sambucus canadensis</i>			/		
* <i>Myriophyllum pinnatum</i>						<i>Sapium sebiferum</i>			/		
<i>Myriophyllum spicatum</i>						<i>Saururus cernuus</i>					
* <i>Najas filifolia</i>						<i>Schinus terebinthifolius</i>					
* <i>Najas guadalupensis</i>		/				* <i>Schoenoplectus californicus</i> <u>Plant ID#2</u>	/				(4) DC
* <i>Najas minor</i>						* <i>Schoenoplectus pungens</i>					
<i>Nelumbo lutea</i>						* <i>Schoenoplectus tabernaemontani</i> (<i>Scirpus validus</i>)	/				(5) DC
<i>Nitella</i> spp.	/	/	/	/		<i>Scirpus cubensis</i> (<i>Oxycaryon cubense</i>)				/	Plant ID#1
<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>Sparanium 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>					
<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</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>)						<u><i>Cyperus papyrus</i></u>	/				
<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>	/	/	/	/							
<i>Sagittaria latifolia</i>											

LVI MAP FOR WBID 3017, LAKE IRMA

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

