



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STRATEGIC MONITORING PROGRAM FIELD SHEET

PAGE 1 OF 1

March 2017

Data Qualified?

Yes / No

Location/STORET Station Name: Lake Eaton, Center

Date: 10/2/17

STORET # 20020393

WBID: 2771A

Latitude: 29.25833

County: Marion

RQ: 2017-09-11-42

ORG ID: 21FLCEN

Longitude: -81.86944

Receiving Body of Water: Eaton Crk

Field ID: 20020393

Sampling Team Members		WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
Terry Leonard		☒	☒	☒	☒	☒
Mike Drennan		☒	☒	☒	☒	☒

Sampling Equipment	
☒ Sample Container	☐ Van Dorn ☐ Pole
☐ Carboy	☒ Syringe
☐ Dipper	☐ Other
Equipment ID	

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

Water Level:		Matrix:	
Dry / Pooled / Low / Normal / High / Flooded	<u>Normal</u>	Fresh / Marine / DI	<u>Fresh</u>

Meter ID#		Photos:		Tide Falling:	
<u>3068 NON</u>	<u>Yes</u>	Yes / No	Yes / No / NA	<u>Yes</u>	<u>NA</u>

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	1440	0.3	2.2	4.5	58	6.3	0.1	0.3	131	26.2
CEN		1.7		2.6	31	6.2	0.1		132	25.2

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

SBIO ID Numbers: SBIO-ID: 78058 RPS-ID: Macrophyte-ID: 10751 LIMS#: 1933386

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 ☒ H2SO4	<u>SA 7093010</u>	<u>4/3/18</u>	☒ <2
Metals	☒ W-ICPMS ☐ W-ICP	☒ Ice ☒ HNO3	<u>NA 7086060</u>	<u>3/27/18</u>	☒ <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-QLDC	☐ 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			

Contains 1:1 Sulfuric Acid SA-7093010 EXP: 04/03/18 Warning! See SDS

Contains 1:1 Nitric Acid NA-7086060 EXP: 03/27/18 Warning! See SDS

Notes: ✓DTY-QN-C ✓RKO-QN-C ✓ICE ✓ICE

Lake Eaton, Center

Date: 10/02/2017
RQ-2017-09-11-42

Signature: [Signature] Date: 10/2/17

Field Parameters Entered into LIMS: LM 10 19 17 (Initials/Date)

Date Migrated to STORET: (Initials/Date)

Field Parameters QC in LIMS: 7R 10/26/17 (Initials/Date)

Field Sheets Scanned/Saved: (Initials/Date)

20020393
Field ID ↑
STORET ↓
20020393

DEP FORM FD 9000-31: LAKE OBSERVATION FIELD SHEET

SAMPLE ID: 78058 MACROPHYTE ID: 10751 LATITUDE: 29.25833
 COUNTY: Marion STORET #: 20020393 LONGITUDE: -81.86944
 DATE: 10/2/17 TIME: 1440 SAMPLING AGENCY: FDEP-CEROC
 SITE NAME: Lake Eaton, Center WBID: 2771A
 FIELD ID/NAME: 20020393 LAKE SIZE: 126.6 Ha RQ: 2017-09-11-42

WATERSHED / LAKESIDE FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category – from GIS) : Forest/Natural <u>98</u> Silviculture <u> </u> Field/Pasture <u> </u> Agricultural <u> </u> Residential <u>2</u> Commercial <u> </u> Industrial <u> </u> Other (Specify) <u> </u>				LANDSCAPE DEVELOPMENT INTENSITY (100 m buffer) LDI: <u>1.003</u>	
Local Watershed Erosion (select one) : ☒ None ☐ Slight ☐ Moderate ☐ Heavy Local Watershed NPS Pollution : ☒ No evidence ☐ Slight ☐ Moderate ☐ Heavy				Artificially Impounded ☐ Yes ☒ No	
STORMWATER INPUTS <u>19</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	
LAKESIDE ALTERATIONS <u>18</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	
BUFFER ZONE <u>18</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	
				Moderate direct inputs of stormwater (ditches, pipes, cultivated vegetation 11%-50%) but few BMPs in place 10 9 8 7 6	
				Many structures, roads or other human disturbance visible (50%-70% lakeside affected) 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	
				Highly developed or disturbed (>70% of lakeside affected) 5 4 3 2 1	
				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 ☐ No pH<2 ☐ No Color Sample Taken? ☒ Yes ☐ No Lot # <u>7093010 / 7086060</u> Exp. Date: <u>4/3/18 / 3/27/18</u> Alkalinity Sample Taken? ☒ Yes ☐ No Water Level ☐ Low ☒ Normal ☐ High								Water Odors: ☒ Normal ☐ Sewage ☐ Petroleum ☐ Other _____							
Meter Readings: Top: Depth (M) <u>0.3</u> Temp. (°C) <u>26.2</u> pH (SU) <u>6.3</u> D.O. (MG/L) <u>4.5</u> D.O. Sat. (%) <u>58</u> Cond. (UMHO/CM) <u>131</u> Salinity (PPT) <u>0.1</u> Mid-Depth: _____ Bottom: <u>1.7</u> <u>25.2</u> <u>6.2</u> <u>2.6</u> <u>31</u> <u>132</u> <u>0.1</u>								Water Surface Oils: ☒ None ☐ Sheen/Slick ☐ Glob ☐ Other _____							
Meter ID: _____								Clarity: ☒ Clear ☐ Opaque ☐ Turbid ☐ Slightly Turbid Color: ☐ Clear ☒ Tannic ☐ Green							
Sediment Type: (may check more than one) ☐ Sandy ☐ Organic fibrous (peaty, CPOM) ☒ Sand/Silt ☐ Organic smooth (muck) Sample Taken? ☐ Yes ☒ No ☒ Vegetated ☐ Other (Specify): _____								SECCHI (M) <u>0.3</u> Total Station Depth (M) <u>2.2</u> VOB ☐							
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: Absent Rare Common Abundant Periphyton ☐ ☒ ☐ ☐ Nuisance Plants ☐ ☐ ☐ ☒ Submersed Plants ☐ ☐ ☐ ☒ Exotic Apple Snails ☐ ☒ ☐ ☐			
Weather Conditions: <u>60's Sunny</u>								Additional Notes: <u>much Hydrilla</u>							
SAMPLING TEAM: <u>Terry Riordan / Mike Drennan</u>								SIGNATURE: _____ DATE: <u>10/2/17</u>							

DEP FORM FD 9000-27 LAKE VEGETATION INDEX FIELD SHEET

Waterbody: <u>Lake Eaton, Center</u>		County: <u>Marion</u>		Date: <u>10/2/17</u>							
Analyst: <u>Terry Riordan / Mike Brennan</u>		Signature: <u>[Signature]</u>		STORET: <u>20020393</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): 1, 4, 7, 10 <u>2, 5, 8, 11</u> 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	2	5	8	11	Collected? (✓)	SPECIES	2	5	8	11	Collected? (✓)
Acer rubrum	/	/	/	/		Fraxinus					
Alternanthera philoxeroides	/	/	/	/		Fuirena scirpoides					
Amaranthus australis	/	/	/	/		Gordonia lasianthus					
Andropogon sp.						Habenaria repens			/		
Azolla filiculoides (A. caroliniana)						Hibiscus coccineus					
Baccharis sp.						Hibiscus grandiflora					
Bacopa caroliniana						Hydrilla verticillata	C	D	/		
Bacopa monnieri						Hydrocotyle sp.			/		
Bidens alba						Hygrophila polysperma					
Bidens laevis						Hymenocallis sp.					
Bidens mitis						*Hypericum fasciculatum					
Blechnum serrulatum						*Hypericum hypericoides					
Boehmeria cylindrica						*Hypericum myrtifolium					
Brasenia schreberi						Ilex cassine	/	/	/		
Cabomba caroliniana						Ipomoea aquatica					
Canna						Ipomoea sagittata					
Centella asiatica						Itea virginica					
Cephalanthus occidentalis	/	/	/	/		Juncus effusus					
Ceratophyllum demersum	/	/	/	/		*Juncus marginatus					
Chara sp.						*Juncus megacephalus					
Cicuta maculata						Juncus repens					
Cinnamomum camphora						*Juncus scirpoides					
Cladium jamaicense						Lachnanthes caroliniana					
Colocasia esculenta						Leersia hexandra					
*Commelina						Landoltia punctata (Spirodela punctata)	/	/	/		
Crinum americanum						Lemna sp.					
*Cyperus alternifolius (C. involucratus)						Leucothoe racemosa (Eubotrys racemosa)					
Cyperus articulatus						Limnobia spongia	/	/	/		
Cyperus haspan						Limnophila sessiliflora	/	/	/		
*Cyperus lecontei						Liquidambar styraciflua	/	/	/		
*Cyperus polystachyos						*Ludwigia arcuata					
*Cyperus odoratus						*Ludwigia grandiflora					
*Cyperus surinamensis						*Ludwigia hexapetala					
Cyrtilla racemiflora						*Ludwigia leptocarpa					
Decodon verticillatus						Ludwigia (native)					
Diodia virginiana						*Ludwigia octovalvis	/	/	/		
*Echinochloa crus-galli						*Ludwigia peruviana	/	/	/		
*Echinochloa muricatum						*Ludwigia repens					
Echinochloa walteri						Ludwigia suffruticosa					
Eclipta prostrata (E. alba)						Luziola fluitans (Hydrochloa carolinensis)					
Eichhornia crassipes	/	/	/	/		Magnolia virginiana					
*Eleocharis <u>baldwinii</u>	/	/	/	/		Mayaca fluviatilis					
Eleocharis cellulosa						Melaleuca quinquenervia					
*Eleocharis elongata						Micranthemum glomeratum					
Eleocharis equisetoides						Micranthemum umbrosum					
Eleocharis interstincta						Mikania scandens	/	/	/		
Eleocharis submersa viviparous						Mimosa pigra	/	/	/		
*Eriocaulon compressum						Myrica cerifera	/	/	/		
*Eriocaulon decangulare											
Eupatorium capillifolium											

FORM FD 9000-27: LAKE VEGETATION INDEX FIELD SHEET

Site: <i>Lake Eaton, Center</i>						Date: <i>10/2/17</i>							
SPECIES		2	5	8	11	Collected? (✓)	SPECIES		2	5	8	11	Collected? (✓)
Myriophyllum aquaticum							<i>Salix caroliniana</i>						
*Myriophyllum heterophyllum							Salvinia minima						
*Myriophyllum laxum							<i>Sambucus canadensis</i>						
*Myriophyllum pinnatum							Sapium sebiferum						
Myriophyllum spicatum							<i>Saururus cernuus</i>						
*Najas filifolia							Schinus terebinthifolius						
*Najas guadalupensis		/					*Schoenoplectus californicus				/		
*Najas minor					/		*Schoenoplectus pungens						
<i>Nelumbo lutea</i>			/	/	/		*Schoenoplectus tabernaemontani (<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>							*Sesbania						
<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 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>						
Panicum repens			/	/	/		<i>Thelypteris palustris</i>						
<i>Paspalidium geminatum</i>		/	/	/	/		<i>Triadenum virginicum</i>						
*Paspalum repens							<i>Typha</i> sp.		/	/	/	/	
<i>Paspalum urvillei</i>							Urochloa mutica (<i>Brachiaria mutica</i>)						
<i>Peltandra</i> sp.							*Utricularia gibba (<i>U. biflora</i>)		/	/			
<i>Persea</i> sp.							*Utricularia foliosa						
Pennisetum purpureum							*Utricularia inflata						
<i>Phragmites australis</i>							*Utricularia purpurea						
<i>Pinus elliotii</i>							*Utricularia radiata						
Pistia stratioides		/	/	/	/		*Utricularia resupinata						
<i>Pluchea</i> sp.							<i>Vallisneria americana</i>						
*Polygonum glabrum (<i>densiflorum</i>)							<i>Vitis</i> sp.						
<i>Polygonum hirsutum</i>							*Websteria confervoides						
*Polygonum hydropiperoides							Wedelia trilobata (<i>Sphagnetocola trilobata</i>)						
*Polygonum punctatum			/	/	/		<i>Wolffiella</i> spp.						
*Polygonum			/	/	/		<i>Woodwardia virginica</i>						
<i>Pontederia cordata</i>		/	/	/	/		<i>Xyris</i> sp.						
*Potamogeton diversifolius							<i>Zizania aquatica</i>						
*Potamogeton illinoensis							<i>Zizaniopsis milacea</i>						
*Potamogeton pusillus													
*Potamogeton pectinatus (<i>Stuckenia pectinatus</i>)													
<i>Proserpinaca pectinata</i>													
*Rhexia													
*Rhynchospora corniculata													
*Rhynchospora inundata													
<i>Rhynchospora nitens</i>													
<i>Ricciocarpus natans</i>													
<i>Sabal palmetto</i>		/	/	/	/								
<i>Sacciolepis striata</i>		/	/	/	/								
*Sagittaria filiformis													
*Sagittaria graminea													
*Sagittaria isoetiformis		/	/	/	/								
<i>Sagittaria lancifolia</i>		/	/	/	/								
<i>Sagittaria latifolia</i>		/	/	/	/								

LVI Map for LAKE EATON, WBID 2771A

WBID Run 49
Serial Imagery 2011

- centroid2771A
- 2771Acrosslines

POINTS (clockwise)	Lat	Long
1	29.26805	-81.86633
2	29.26485	-81.86342
3	29.26104	-81.86190
4	29.25729	-81.86133
5	29.25366	-81.86321
6	29.25481	-81.86730
7	29.25296	-81.87028
8	29.25512	-81.87371
9	29.25858	-81.87517
10	29.26065	-81.87289
11	29.26183	-81.86890
12	29.26525	-81.86766

0 250 500 750
 Feet

Sources: Esri, DigitalGlobe, GeoEye,
 Government, AeroGRID, IGN, USF,

MapInfo, CNES/Airbus DS, USDA, USGS, AEX,
 Esri User Community