

LVI

Site Name Wildmere Lake Sample Date 10/31/2019WBID 2994 G WIN ID G2CF0226 RQ -2019-10-28-59

	Initial/Date	QC Initial/Date
Water chemistry data to LIMS	MKL 12/2/19	LB 12/17/19
Create SBIO station visit 80517	MKL 12/2/19	n/a
Vascular Entry (add LIMS ID)	MKL 12/2/19	LB 12/17/19
Lake Observation Sheet Entry	MKL 12/2/19	LB 12/17/19
Authorize SBIO data	LB 12/17/19	n/a
Scan all sheets to 21FLCEN folder		n/a
LIMS/WIN migration		n/a
File in cabinet		n/a

Comments/notes:



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2019

Data Qualified?
Yes / No

WIN Station Name: Wildmere Lake @ Center

Date: 10/31/2019

WIN/ Field ID: G2CE0226

WBID: 2994 G Latitude: 28.69479563

County: Seminole

ORG ID: 21FLCEN Longitude: -81.3348223

Receiving Body of Water: _____

RQ-2019- 10-28-59

Sampling Team Members					WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check	Sampling Equipment				
Mike Linger					/	/				☒ Sample Container	☐ Van Dorn	☐ Pole		
Leif Boman						/		/	/	☐ Carboy	☒ Syringe			
										☐ Dipper	☐ Other			
Water Level: Dry/ Pooled/ Low / <u>Normal</u> / High / Flooded										Motor ID# <u>Shrimp Trap</u> Matrix: <u>Fresh</u> Marine / DI				
Photos: <u>Yes</u> / No Flow: No Flow / Intestinal / Flowing <u>NA</u>										Tide: Rising/ Falling/ Slack/ <u>NA</u> 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 (umhos/cm)	Temp. (C°)				
EST	1115	<u>0.3</u>	<u>0.3</u>	<u>3.5</u>	<u>7.89</u>	<u>101.3</u>	<u>7.38</u>	<u>0.08</u>	<u>164.7</u>	<u>28.2</u>				
GEN		<u>5.4</u>	<u>5.3</u>		<u>2.23</u>	<u>27.5</u>	<u>7.23</u>	<u>0.08</u>	<u>167.7</u>	<u>27.1</u>				
Biological Samples Collected: None HA SCI RPS Algae ID LVS <u>LVI</u> Other:														
SBIO ID Numbers: SBIO-ID: <u>80511</u> HA-ID: <u>16404</u> RPS-ID: _____ Macrophyte-ID: <u>11558</u> LIMS#: <u>2133022</u>														
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		<u>SA9010030</u>	<u>4/10/20</u>	☒ <2				
Metals		☐ W-ICPMS ☐ W-ICP				☐ Ice ☐ HNO3				☐ <2				
Filtered Nutrients		☒ W-PO4-F ☒ Field Filtered 0.45 um Filter				☒ Ice		<u>16930280</u>						
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				☐ Ice								
		☐ PCR-HF183 ☐ PCR-DG3 ☐ PCR-GFD												
Tracers		☐ W-E8321-DI ☐ W-E8321-MS				☐ Ice								
Pesticides		☐ W-PSNP-TQ ☐ W-CT-CL-R ☐ W-E8321-DI				☐ Ice								
		☐ W-PCL-SQ-R ☐ WE8321-MS ☐ W-CAR3-AA				☐ Other								
Phytoplankton		☐ DTY-QN-C ☐ PKD-QN-C				☐ Ice								

Notes:

Signature: [Signature]

Date: 10/31/19

WIN ID / Field ID →

Wildmere Lake @
Center



G2CE0226

LIMS EVENT ID: CENT-DIST-2019-11-01-01

Enter Field Parameters, Verify Station ID In LIMS DMT: MKL 12/2/15

QC Station ID, Field Parameters In LIMS DMT: LB 12/17/19

Scan/Save Field Sheets

Migrate Data to WIN:

Verify Data In WIN:

(Initials/Date)

(Initials/Date)

(Initials/Date)

DEP FORM FD 9000-31: LAKE OBSERVATION FIELD SHEET

SAMPLE ID: _____ MACROPHYTE ID: _____ LATITUDE: 28.69479563
 COUNTY: Seminole STORET #: 62CE0226 LONGITUDE: -81.3348223
 DATE: 10/31/19 TIME: 1115 SAMPLING AGENCY: FDEP CE-Roc
 SITE NAME: Lake Wildmore Lake @ Center WBID: 2994 G
 FIELD ID/NAME: _____ LAKE SIZE: med. RQ: -2019-10-28-59

WATERSHED / LAKESIDE FEATURES

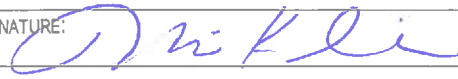
PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category - from GIS) :										LANDSCAPE DEVELOPMENT INTENSITY (100 m buffer)											
Forest/Natural	Silviculture	Field/Pasture	Agricultural	Residential	Commercial	Industrial	Other (Specify)														
<u>20</u>				<u>80</u>																	
Local Watershed Erosion (select one) : ☐ None ☒ Slight ☐ Moderate ☐ Heavy										Artificially Impounded ☐ Yes ☒ No											
Local Watershed NPS Pollution : ☐ No evidence ☐ Slight ☒ Moderate ☐ Heavy																					
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			Much direct input of stormwater (ditches, pipes, cultivated vegetation > 51%) and no or ineffective BMPs in place										
<u>5</u>		20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
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)			Highly developed or disturbed (>70% of lakeside affected)										
<u>5</u>		20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
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			< 29% of shoreline with >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 # _____ 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: <u>0.3</u> <u>28.2</u> <u>7.38</u> <u>7.89</u> <u>101.3</u> <u>164.7</u> <u>0.08</u> Mid-Depth: _____ Bottom: <u>5.3</u> <u>27.1</u> <u>7.23</u> <u>2.23</u> <u>27.5</u> <u>167.7</u> <u>0.08</u> Meter ID: <u>Shrimp Trap</u>								Clarity: ☒ Clear ☐ Opaque ☐ Turbid ☐ Slightly Turbid Color: ☒ Clear ☐ Tannic ☐ Green SECCHI (M) <u>3.5</u> Total Station Depth (M) <u>5.8</u> VOB ☐							
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 ☐ 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 ☒ ☐ ☐ ☐							
Additional Notes:															
Weather Conditions : <u>80's clear</u>															
SAMPLING TEAM: <u>Mike Linger</u>								SIGNATURE: <u>Mike Linger/Leif Boman</u>							
DATE: <u>10/31/19</u>															

DEP Form FD 9000-6: Lake Habitat Assessment Field Sheet

STORET STATION NUMBER: G2CE 0226	DATE (M/D/Y) 10/31/2019	LAKE NAME Wildmere Lake		FIELD ID / NAME:		
ECO-REGION:	COUNTY: Seminole	SAMPLING LOCATION/DESCRIPTION: C. Center		LAKE SIZE: Medium		
PARAMETER	No surface inflow or outflow present, very long water residence time, groundwater seepage dominates ☐	Surface water inflow present, but flow is rare, moderate to long water residence time ☒		Surface water inflow and outflow present (or outflow only), sometimes with visible flow, short water residence time ☐		
HYDROLOGY				Impounded, hydrology of system artificially controlled ☐		
Color	Very clear, uncolored water* (benthic sampling appropriate) ☒	Water somewhat tannin stained (benthic sampling appropriate) ☐		Dark, discolored water (water color 20 PCU or higher) ☐		
	Optimal	Suboptimal		Marginal		
Secchi	Secchi > 3 m Or VOB	Secchi(m)		Secchi(m)		
17	20 19 18 17 16	15 14 13 12 11		10 9 8 7 6		
Vegetation Quality	Diverse, expected native vegetation (emergent or submersed), less than 5% nuisance taxa 13	Mostly expected native plants, but moderate growths (6%-20% of lake) of nuisance macrophytes, or more than 50% of lake covered with plants		Large masses (21%-40%) of nuisance macrophytes (e.g., Hydrilla, hyacinth, cattail, etc.) or algal mats		
	20 19 18 17 16	15 14 13 12 11		10 9 8 7 6		
Stormwater Inputs	Stormwater enters system via sheet flow over non-cultivated and/or natural vegetation 5	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		
	20 19 18 17 16	15 14 13 12 11		10 9 8 7 6		
Bottom Substrate Quality	Diverse mixture of sand, detritus, with small amounts of CPOM/mud/muck. SAV may be present 11	Mixture of sand or clay and detritus with higher % CPOM/mud/muck content. SAV may be present		Moderate layer of CPOM/mud/muck, or hardpacked sand only, or moderate algal growth (mats or Chara) on bottom		
	20 19 18 17 16	15 14 13 12 11		10 9 8 7 6		
Lakeside Adverse Human Alterations	Very few man-made structures, roads, or other disturbance adjacent to lake (<10%) 5	Moderate disturbance visible (structures, roads or other), 10%-49% lakeside affected		Many structures, roads or other human disturbance visible (50%-70%) lakeside affected		
	20 19 18 17 16	15 14 13 12 11		10 9 8 7 6		
Upland Buffer Zone	Expected native vegetation between uplands and littoral zone, greater than 90% of shore with >18 m buffer 7	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		
	20 19 18 17 16	15 14 13 12 11		10 9 8 7 6		
Adverse Watershed Land Use	Score the potential effects from adverse human land uses, based on a continuum of amount and type, with least to most adverse as follows: Native vegetation, Silviculture, Pasture or Citrus, Low Density Residential, Row Crops, Commercial, High Density Residential, Urban, Industrial 12					
	20 19 18 17 16	15 14 13 12 11		10 9 8 7 6		
TOTAL SCORE	70	COMMENTS:				

ANALYSIS DATE: 10/31/19	ANALYST: Mike Linger	SIGNATURE: 
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DEP FORM FD 9000-27 LAKE VEGETATION INDEX FIELD SHEET

Waterbody: <u>Lake Wildmere</u>		County: <u>Seminole</u>		Date: <u>10/31/19</u>							
Analyst: <u>Leif Bonner, Mike Linger</u>		Signature: <u>Leif</u>		STORET:							
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 2, 5, 8, 11 <u>3, 6, 9, 12</u>							
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	3	6	9	12	Collected? (✓)	SPECIES	3	6	9	12	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					
Bacopa monnieri			/			Hydrocotyle sp.	/	/	/	/	
Bidens alba						Hygrophila polysperma					
Bidens laevis						Hymenocallis sp.					
Bidens mitis						*Hypericum fasciculatum					
Blechnum semulatum						*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 <u>diffusa</u>	/	/	/	/		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	/	/	/	/	C12
*Cyperus surinamensis	/	/	/	/		*Ludwigia hexapetala					
Cyrilla 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						Mayaca fluviatilis					
Eleocharis cellulosa						Melaleuca quinquenervia					
*Eleocharis elongata						Micranthemum glomeratum					
Eleocharis equisetoides						Micranthemum umbrosum					
Eleocharis interstincta						Mikania scandens	/	/	/	/	
Eleocharis submersed viviparous						Mimosa pigra					
*Eriocaulon compressum						Myrica cerifera	/	/	/	/	
*Eriocaulon decangulare											
Eupatorium capillifolium	/	/	/	/							

Site: Lake WildmereDate: 10/31/19

SPECIES					Collected? (✓)	SPECIES					Collected? (✓)
	3	6	9	12			3	6	9	12	
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>					
Myriophyllum spicatum						<i>Saururus cernuus</i>			/		
* <i>Najas filifolia</i>						<i>Schinus terebinthifolius</i>	/				
* <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.		(LB) +				<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 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 gibba</i> (<i>U. biflora</i>)			/		
<i>Persea</i> sp.						* <i>Utricularia foliosa</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>	4	4	/	/	
* <i>Polygonum glabrum</i> (<i>densiflorum</i>)						<i>Vitis</i> sp.					
<i>Polygonum hirsutum</i>						* <i>Websteria confervoides</i>					
* <i>Polygonum hydropiperoides</i>						<i>Wedelia trilobata</i> (<i>Sphagneticola trilobata</i>)					
* <i>Polygonum punctatum</i>						<i>Wolffiella</i> spp.					
* <i>Polygonum</i>						<i>Woodwardia virginica</i>		/			
<i>Pontederia cordata</i>		/				<i>Xyris</i> sp.					
* <i>Potamogeton diversifolius</i>						<i>Zizania aquatica</i>					
* <i>Potamogeton illinoensis</i>						<i>Zizaniopsis milacea</i>					
* <i>Potamogeton pusillus</i>						<i>Vigna lutea</i>	/	/	/	/	
* <i>Potamogeton pectinatus</i> (<i>Stuckenia pectinatus</i>)						<i>climbing aster</i>					
<i>Proserpinaca pectinata</i>						<i>Hex / Scirpus ?</i>					12
* <i>Rhexia</i>						<i>Cassia</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 Wildmere Lake , WBID 2994G

