

DEP FORM FD 9000-31: LAKE OBSERVATION FIELD SHEET

SAMPLE ID: 80392 MACROPHYTE ID: 11514 LATITUDE: 30.3922
 COUNTY: LEON STORET #: LE0139NL LONGITUDE: -84.40628
 DATE: 10/18/2019 TIME: 940AM SAMPLING AGENCY: FDEP/AEQA
 SITE NAME: Moore Lake WBID: 889A
 FIELD ID/NAME: Moore Ref LAKE SIZE: 70 acres RQ: 2019-10-14-51

WATERSHED / LAKESIDE FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category -- from GIS):				airport				LANDSCAPE DEVELOPMENT INTENSITY (100 m buffer)			
Forest/Natural	Silviculture	Field/Pasture	Agricultural	Residential	Commercial	Industrial	Other (Specify)	LDI: <u>1</u>			
<u>10</u>	<u>80</u>						<u>10</u>	Land Use Source & Year: <u>2005</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>19</u>											
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>18</u>											
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>18</u>											

WATER / SUBSTRATE / BIOLOGICAL: SAMPLES AND OBSERVATIONS

Water:						Water Odors: ☒ Normal					
Nutrient Sample Taken? ☒ Yes ☐ No Preserved? ☒ Yes ☒ pH<2 ☐ No						☐ Sewage ☐ Petroleum ☐ Other					
Color Sample Taken? ☒ Yes ☐ No Lot # <u>6A912910</u> Exp. Date: <u>5/9/20</u>						Water Surface Oils: ☒ None					
Alkalinity Sample Taken? ☒ Yes ☐ No						☐ Sheen/Slick ☐ Glob ☐ Other					
Water Level ☐ Low ☒ Normal ☐ High											
Meter Readings:		Depth (M)	Temp. (°C)	pH (SU)	D.O. (MG/L)	D.O. Sat. (%)	Cond. (UMHO/CM)	Salinity (PPT)	Clarity: ☒ Clear		Color: ☐ Clear
Top:	<u>.1</u>	<u>24.1</u>	<u>5.20</u>	<u>6.38</u>	<u>76%</u>	<u>16</u>			☐ Opaque ☐ Turbid	☒ Tannic ☐ Green	
Mid-Depth:	<u>.75</u>	<u>24.1</u>	<u>5.15</u>	<u>5.93</u>	<u>71</u>	<u>16</u>			☐ Slightly Turbid		
Bottom:	<u>1.5</u>	<u>24.1</u>	<u>5.16</u>	<u>6.12</u>	<u>72</u>	<u>16</u>			SECCHI (M) <u>2.3</u>	Total Station Depth (M) <u>2.6</u>	
Meter ID: <u>154185</u>											
Sediment Type: (may check more than one)						Sediment Odors:					
☐ Sandy ☐ Organic fibrous (peaty, CPOM) ☐ Vegetated						☒ Normal ☐ Other (Specify):					
☐ Sand/Silt ☒ Organic smooth (muck) ☐ Other (Specify):						☐ Anaerobic					
Biological Communities:						Abundance:					
LVI Conducted? ☒ Yes ☐ No						Absent Rare Common Abundant					
Phytoplankton Sample Taken? ☒ Yes ☐ No						Periphyton ☐ ☐ ☒ ☐					
Sample Preserved? ☐ Yes ☒ No						Nuisance Plants ☐ ☒ ☐ ☐					
Lot #: Exp Date:						Submersed Plants ☐ ☐ ☐ ☒					
Algal Bloom/Algal ID Sample Taken? Yes ☐ No ☒						Exotic Apple Snails ☒ ☐ ☐ ☐					
Active Vegetation Mgmt? ☐ Yes ☒ No ☐ Don't Know											
Weather Conditions: <u>overcast, cool</u>											
SAMPLING TEAM: <u>S. Noble, N. Wellendorf, J. Piacente</u>						SIGNATURE: <u>[Signature]</u>			DATE: <u>10/18/19</u>		

DEP FORM FD 9000-27 LAKE VEGETATION INDEX FIELD SHEET

Waterbody: <u>MOORE Lake</u>					County: <u>LEON</u>					Date: <u>10/18/19</u>				
Analyst: <u>S. NOBLE</u>					Signature: <u>Sarah Noble</u>					STORET: <u>LE0139NL</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						Habenaria repens								
Alternanthera philoxeroides			1			Hydrilla verticillata				1				
Andropogon sp.			1			Hydrocotyle sp.			1					
Azolla filiculoides (A. caroliniana)			1			Hygrophila polysperma								
✓ Baccharis sp. <u>halimifolia</u>			1		✓	*Hypericum fasciculatum	1		1	1				
Bacopa caroliniana			1			*Hypericum hypericoides								
Bacopa monnieri						*Hypericum myrtifolium								
Bidens laevis						Ilex cassine								
Bidens mitis						Ipomoea aquatica								
Blechnum serrulatum						Ipomoea sagittata								
Boehmeria cylindrica			1			Itea virginica								
Brasenia schreberi						Juncus effusus								
Cabomba caroliniana		C	1	1		*Juncus marginatus								
Casuarina equisetifolia						*Juncus megacephalus								
Centella asiatica						Juncus repens								
Cephalanthus occidentalis	1	1	1			*Juncus scirpoides								
Ceratophyllum demersum						Lachnanthes caroliniana								
Chara sp.						Leersia hexandra								
Cladium jamaicense						Landoltia punctata (Spirodela punctata)								
Cliftonia monophylla						Lemna sp.								
Colocasia esculenta						Leucothoe racemosa (Eubotrys racemosa)								
*Commelina						Limnium spongia								
Crinum americanum						Limnophila sessiliflora								
*Cyperus alternifolius (C. involucratus)						Liquidambar styraciflua								
Cyperus articulatus						*Ludwigia arcuata			1					
Cyperus haspan						*Ludwigia leptocarpa	1		1	1				
*Cyperus lecontei						*Ludwigia linearis								
*Cyperus polystachyos						*Ludwigia octovalvis								
*Cyperus odoratus				1		* Ludwigia peruviana								
*Cyperus surinamensis						*Ludwigia repens								
Cyrtia racemiflora	1	1	1	1		*Ludwigia								
Decodon verticillatus						Luziola fluitans (Hydrochloa carolinensis)	1	1						
Diodia virginiana						Lyonia lucida								
*Echinochloa crus-galli						Magnolia virginiana								
*Echinochloa muricatum						Mayaca fluviatilis			1					
Echinochloa walteri						Melaleuca quinquenervia								
Eclipta prostrata (E. alba)						Micranthemum glomeratum								
Egeria densa						Micranthemum umbrosum								
Eichhornia crassipes						Mikania scandens								
*Eleocharis baldwinii						Mimosa pigra								
*Eleocharis <u>elongata</u>			1	1		Myrica cerifera		1	1					
Eleocharis cellulosa														
Eleocharis equisetoides						<u>Lycopus americanus</u>		1	1		✓			
Eleocharis interstincta														
*Eriocaulon compressum						<u>Aster</u>		1			✓			
*Eriocaulon decangulare														
Eupatorium capillifolium				1										
*Fuirena														
Fuirena scirpoidea														
Gordonia lasianthus														

FORM FD 9000-27: LAKE VEGETATION INDEX FIELD SHEET

Site: <u>Moore Lake</u>						Date: <u>10/18/2019</u>					
SPECIES	3	6	9	12	Collected? (✓)	SPECIES	3	6	9	12	Collected? (✓)
Myriophyllum aquaticum						Salix caroliniana <u>nigra</u>			1		
*Myriophyllum heterophyllum						Salvinia minima					
*Myriophyllum laxum	1	1	1	0		Sambucus canadensis					
*Myriophyllum pinnatum						Sapium sebiferum					
Myriophyllum spicatum						Saururus cernuus					
*Najas filifolia						Schinus terebinthifolius					
*Najas guadalupensis						*Schoenoplectus californicus					
*Najas minor						*Schoenoplectus pungens					
Nelumbo lutea						*Schoenoplectus tabernaemontani (Scirpus validus)					
Nitella spp.						Scirpus cubensis (Oxycaryon cubense)					
Nuphar sp.	1		1	1		Scirpus cyperinus					
Nymphaea odorata	1	0	0	1		*Sesbania					
Nymphoides aquatica						Solidago sp.					
Nyssa sylvatica var. biflora	1	1	1	1		Sparganium americanum					
Orontium aquaticum						Spartina bakeri					
Osmunda cinnamomea						Spirodela polyrhiza					
Osmunda regalis						Taxodium sp.	1	1	1	1	
Panicum hemitomon	1	1	1	1		Thalia geniculata					
Panicum repens			1			Thelypteris palustris					
Paspalidium geminatum						Triadenum virginicum			1	1	
*Paspalum repens						Typha sp.				1	
Paspalum urvillei						Urochloa mutica (Brachiaria mutica)					
Peltandra sp.						*Utricularia gibba (U. biflora)	1				
Persea sp.						*Utricularia floridana	0	0	0	0	
Pennisetum purpureum						*Utricularia foliosa					
Phragmites australis						*Utricularia inflata					
Pinus elliotii						*Utricularia purpurea	1	1	1	1	
Pistia stratioides						*Utricularia cornuta					
Pluchea sp.						*Utricularia radiata					
*Polygonum glabrum (densiflorum)						Vallisneria americana					
*Polygonum hydropiperoides						*Websteria confervoides	1	1			
*Polygonum punctatum						Wedelia trilobata (Sphagneticola trilobata)					
*Polygonum						Wolffiella spp.					
Pontederia cordata						Woodwardia virginica					
*Potamogeton diversifolius						Xyris sp.	1	1	1	1	
*Potamogeton illinoensis						Zizania aquatica					
*Potamogeton pusillus						Zizaniopsis milacea					
*Potamogeton pectinatus (Stuckenia pectinatus)											
Proserpinaca pectinata						<u>Sphagnum</u>	1		1		
*Rhexia											
*Rhynchospora corniculata											
*Rhynchospora inundata											
Rhynchospora tracyi											
Ricciocarpus natans											
Sabal palmetto											
Sacciolepis striata			1								
*Sagittaria filiformis											
*Sagittaria graminea											
*Sagittaria isoetiformis											
Sagittaria lancifolia											
Sagittaria latifolia											
<u>scirpoides (NW)</u>											
✓ Rhynchospora natans				1	✓						
✓ Rhynchospora sp.				1	✓						

inundata (long bristles)
past achene body

SITE NAME: Moore LakeDATE: 10/18/19 TIME 940 EST CST DEPTH*: ft m FIELD ID: Moore Ref
(military)

SAMPLING TEAM MEMBERS	WQ MEASUREMENTS	DOCUMENTATION	SAMPLE COLLECTION	PRESERVATION	PRESERVATION CHECK
<u>N. Wellendorf</u>	☒		☒	☒	☒
<u>J. Diacento</u>		☒	☒		
<u>S. Noble</u>					

SAMPLING EQUIPMENT	
☒ Sample Container	☐ Tubing type: <u> </u>
☐ Pole	☐ Other: <u> </u>
☐ Pump ID#: <u> </u>	☐ Other: <u> </u>
WATER QUALITY MEASUREMENTS	
Instrument ID: <u>154185</u>	
COLLECTION MODE	
☐ Wading	☒ Via Boat
☐ Diving	☒ Canoe
☐ From Shore	☐ Electric Motor
☐ Other: <u> </u>	☐ Gasoline Motor

Parameter Suite	Parameter(s)/Method	Matrix Code*	Preservation**	Preservative Lot #	pH Check	# Bottles
Preserved Nutrients	☒ TKN ☒ TP ☒ NOx ☒ NH3 ☐ TOC ☐ Total N ☐ Other: <u> </u>	<u>S</u> W	☒ Ice ☒ H ₂ SO ₄		☒ <2	<u>1</u>
Filtered Nutrients	☒ oP ☐ Other: <u> </u>	<u>S</u> W	☒ Ice ☒ .45 um Filter			<u>1</u>
Unpreserved Nutrients	☐ NO ₂ ☐ NO ₃ ☐ SO ₄ ☐ Other: <u> </u>	W	☐ Ice			
Physical/Aggregate Properties	☐ TDS ☐ TSS ☐ TS ☐ Turbidity ☐ Alk ☒ Color ☐ Other: <u>CL F 504</u>	<u>S</u> W	☒ Ice			<u>1</u>
Chlorophyll	☒ CHL-PPTN-W	<u>S</u> W	☒ Ice			<u>1</u>
BOD	☐ BOD-INHB ☐ BOD-UNIN	W	☐ Ice			
Microbiology	MF: ☐ E coli ☐ T Coli ☐ F Coli ☐ Entero ☐ F Strep	W	☐ Ice			
Macroinvertebrates	☐ MI-FW-QLDC ☐ MI-FW-QLBR ☐ MI-FW-QNNC ☐ MI-MN-QNNC	W	☐ Formalin			
Phytoplankton	☒ PKD-QN-C ☒ DTY-QN-C	<u>S</u> W	☐ Lugol's			<u>1</u>
Periphyton	☐ PRN-QL-C ☐ DTM-QL-C ☐ PRN-QN-C ☐ DTM-QN-C	W	☐ Formalin			
AGP	☐ AA-AGP ☐ AA-LIM-NUT	W	☐ Ice			
Metals	☒ W-ICP ☐ W-FIAS ☒ W-ICPMS ☐ W-ICP-Tr	<u>S</u> W	☒ HNO ₃		☒ <2	<u>1</u>
Filtered Metals	☐ W-ICP-F ☐ W-FIAS-F ☐ W-ICPMS-F ☐ W-ICP-Tr-F	W	☐ HNO ₃ ☐ .45 um Filter		☐ <2	
Mercury	☐ W-HG-AF	W				
Base/Neutral / Acid Extractable	☐ W-BNA ☐ W-AE ☐ W-BN ☐ W-PAH ☐ W-FL-PRO ☐ W ☐ Other: <u> </u>	W	☐ Ice ☐ H ₂ SO ₄		☐ <2	
Pesticides	☐ W-PEST-CL ☐ W-PCB ☐ W-PEST-NP ☐ W-PSCL-PCB ☐ W-NP-AA-SF ☐ W-PC-AA-SF ☐ W-PSHRB-NP ☐ W-SLFN-UREA ☐ W-SULFN-LC ☐ Other: <u> </u> ☐ W-ACIDHERB ☐ W-CARB	W	☐ Ice			
Purgeables	☐ W-VOC-MS ☐ W-VOC-MS-A	W	☐ Ice ☐ HCl			
Bioassay	Specify Test: <u> </u>	W	☐ Ice			
OTHER		W	☐ Other: <u> </u>			

Notes:

HNO3 Lot # NA9189080 exp. 7/8/2020H2SO4 Lot # SA9129100 exp. 5/9/2020

Use one line for each set of sample (as supplied by the laboratory) containers. Use separate sheet for field or laboratory duplicate or blank or different water depth

Enter "S" for surface if collected at a depth less than or equal to 1 foot

Matrix Codes (Insert prefix): SW = Surface Water GW = Groundwater DW = Drinking Water WW = Wastewater O = Other:

*PRESERVATIVES: 1 ml added unless otherwise noted

**Enter number of containers supplied by the laboratory for the test (e.g., 3 for volatile organics, etc.)

DEP Bureau of Laboratories Water Sample Collection Record

(Use with FDEP SOP-001/01 Form FD 9000-3 Physical/Chemical Characterization Field Sheet)

Field Report Prepared By: S. Noble

Sampling Agency: FDEP/AESA

Location	Moore Lake		Collection (comp begin or grab)		Eastern Central		Composite end		Bottle Group(s)	
Field ID	Moore Ref		Date 10/18/19 Time 940 AM		Date		Date		(See pg 2)	
WIN/STORET #	LEO139NL		Matrix (type, e.g., Salt, Fresh, etc)		Diss. Oxygen		Total Res. Chlorine		A	
Latitude	dd	Longitude	dd	Temp (C)	pH	Sample Depth	ft	Sp. Conductance (umho/cm)	16	
30.3922	dd	-84.40628	dd	Salinity (ppt)	Comments					
Location			Collection (comp begin or grab)		Eastern Central		Composite end		Bottle Group(s)	
Field ID			Date		Date		Date			
WIN/STORET #			Matrix (type, e.g., Salt, Fresh, etc)		Diss. Oxygen		Total Res. Chlorine			
Latitude	dd	Longitude	dd	Temp (C)	pH	Sample Depth	ft	Sp. Conductance (umho/cm)		
Location			Collection (comp begin or grab)		Eastern Central		Composite end		Bottle Group(s)	
Field ID			Date		Date		Date			
WIN/STORET #			Matrix (type, e.g., Salt, Fresh, etc)		Diss. Oxygen		Total Res. Chlorine			
Latitude	dd	Longitude	dd	Temp (C)	pH	Sample Depth	ft	Sp. Conductance (umho/cm)		
Location			Collection (comp begin or grab)		Eastern Central		Composite end		Bottle Group(s)	
Field ID			Date		Date		Date			
WIN/STORET #			Matrix (type, e.g., Salt, Fresh, etc)		Diss. Oxygen		Total Res. Chlorine			
Latitude	dd	Longitude	dd	Temp (C)	pH	Sample Depth	ft	Sp. Conductance (umho/cm)		
Location			Collection (comp begin or grab)		Eastern Central		Composite end		Bottle Group(s)	
Field ID			Date		Date		Date			
WIN/STORET #			Matrix (type, e.g., Salt, Fresh, etc)		Diss. Oxygen		Total Res. Chlorine			
Latitude	dd	Longitude	dd	Temp (C)	pH	Sample Depth	ft	Sp. Conductance (umho/cm)		
Location			Collection (comp begin or grab)		Eastern Central		Composite end		Bottle Group(s)	
Field ID			Date		Date		Date			
WIN/STORET #			Matrix (type, e.g., Salt, Fresh, etc)		Diss. Oxygen		Total Res. Chlorine			
Latitude	dd	Longitude	dd	Temp (C)	pH	Sample Depth	ft	Sp. Conductance (umho/cm)		
Location			Collection (comp begin or grab)		Eastern Central		Composite end		Bottle Group(s)	
Field ID			Date		Date		Date			
WIN/STORET #			Matrix (type, e.g., Salt, Fresh, etc)		Diss. Oxygen		Total Res. Chlorine			
Latitude	dd	Longitude	dd	Temp (C)	pH	Sample Depth	ft	Sp. Conductance (umho/cm)		

Relinquished By: S. Noble	Date/Time 10/18/19, 1305	Shipping Method hand delivered	Number of Coolers Shipped: 1	Received By: 	Date/Time 10/18/19 01:07
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