

recommended 1/29/2019 DEP

data entry 9/14/2018 AO

DEP FORM FD 9000-31: LAKE OBSERVATION FIELD SHEET

SAMPLE ID: VID 78769

MACROPHYTE ID: 11031

LATITUDE: 30° 16' 33" N 30.27521 N

COUNTY: Liberty

STORET #: 31010183

LONGITUDE: 84° 59' 25" W 84.9893 W

DATE: 7/24/18

TIME: 14:25

SAMPLING AGENCY: FDEP

SITE NAME: Camel Lake

WBID: 1039 A

FIELD ID/NAME: Camel Ref

LAKE SIZE: 40

RQ: 2018-07-23-31

WATERSHED / LAKESIDE FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category - from GIS):

Forest/Natural ☒ 20 Silviculture ☒ 50 Field/Pasture ☐ Agricultural ☐ Residential ☐ Commercial ☐ Industrial ☐ Other (Specify) ☐

LANDSCAPE DEVELOPMENT INTENSITY (100 m buffer)

LDI: no LDI in SB102

Local Watershed Erosion (select one): ☐ None ☒ Slight ☐ Moderate ☐ Heavy

Artificially Impounded

Local Watershed NPS Pollution: ☐ No evidence ☒ Slight ☐ Moderate ☐ Heavy

☐ Yes ☒ No

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

Much direct input of stormwater (ditches, pipes, cultivated vegetation > 51%) and no or ineffective BMPs in place

LAKESIDE ALTERATIONS

swim bath area ANE facility

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)

BUFFER ZONE

swim area beach

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

WATER / SUBSTRATE / BIOLOGICAL: SAMPLES AND OBSERVATIONS

Water:

Nutrient Sample Taken? ☒ Yes ☐ No Preserved? ☒ Yes ☐ No pH < 2 ☐ No
Color Sample Taken? ☒ Yes ☐ No Lot # sticker Exp. Date:
Alkalinity Sample Taken? ☒ Yes ☐ No below
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:	0.05	32.6	5.0	6.88	95.2	15.6	
Mid-Depth:	1.6	31.7	5.11	6.89	93.6	15.5	
Bottom:	3.17	31.8	6.51	88.1	15.5		

Clarity:

☒ Clear

☐ Opaque ☐ Turbid ☐ Slightly Turbid

Color:

☒ Clear

☐ Tannic ☐ Green

SECCHI (M)

VOB

Total Station Depth (M)

VOB

☒

32

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 ☐ Other (Specify):
☒ Anaerobic-occasional

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

not typical reference WQ parameters b/c status RQ

Contains: 1:1 H2604
Lot No.: SA7341020
Expires: 12/07/18
See Safety Data Sheet (SDS)

Weather Conditions: very hot, humid, high 80s

SAMPLING TEAM:

J. Patronis, A. O'Neal

SIGNATURE:

Ashley O'Neal

DATE:

7/24/18

DEP FORM FD 9000-27 LAKE VEGETATION INDEX FIELD SHEET

Waterbody: <u>Camel Lake</u>				County: <u>Leon</u>				Date: <u>7/24/2018</u>			
Analyst: <u>J. Patrino, A. O'Neal</u>				Signature: <u>Ashley O'Neal</u>				STORET: <u>3/0/083</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						Hydrilla verticillata					
Andropogon sp.						Hydrocotyle sp.					
Azolla filiculoides (A. caroliniana)						Hygrophila polysperma					
Baccharis sp.						*Hypericum fasciculatum	1	1	1	1	
Bacopa caroliniana						*Hypericum hypericoides					
Bacopa monnieri						*Hypericum myrtifolium					
Bidens laevis						Ilex cassine					
Bidens mitis						Ipomoea aquatica					
Blechnum serrulatum						Ipomoea sagittata					
Boehmeria cylindrica						Itea virginica					
Brasenia schreberi						Juncus effusus					
Cabomba caroliniana						*Juncus marginatus					
Casuarina equisetifolia						*Juncus megacephalus					
Centella asiatica						Juncus repens				1	
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					
*Cyperus lecontei						*Ludwigia linearis					
*Cyperus polystachyos						*Ludwigia octovalvis				1	
*Cyperus odoratus						*Ludwigia peruviana					
*Cyperus surinamensis						*Ludwigia repens					
Cyrtilla racemiflora	1	1	1	1		*Ludwigia					
Decodon verticillatus						Luziola fluitans (Hydrochloa carolinensis)					
Diodia virginiana						Lyonia lucida					
*Echinochloa crus-galli						Magnolia virginiana					
*Echinochloa muricatum						Mayaca fluviatilis	1			1	
Echinochloa walteri					AO	Melaleuca quinquenervia					
Eclipta prostrata (E. alba)				1	✓	Micranthemum glomeratum					
Egeria densa						Micranthemum umbrosum					
Eichhornia crassipes						Mikania scandens					
*Eleocharis baldwinii						Mimosa pigra					
*Eleocharis <u>Sub/Vip</u>	1	1	1	1		Myrica cerifera					
Eleocharis cellulosa						<u>Lacnocaulon sp. minus</u>				1	✓
Eleocharis equisetoides						<u>Gradiola hispida</u>				1	✓
Eleocharis interstincta						<u>Eclipta flondana</u>					
*Eriocaulon compressum											
*Eriocaulon decangulare											
Eupatorium capillifolium											
*Fuirena											
Fuirena scirpoidea											
Gordonia lasianthus											

FORM FD 9000-27: LAKE VEGETATION INDEX FIELD SHEET

Site:						Date:					
SPECIES	3	6	9	12	Collected? (✓)	SPECIES	3	6	9	12	Collected? (✓)
Myriophyllum aquaticum <i>Native</i>				1		Salix caroliniana					
*Myriophyllum heterophyllum						Salvinia minima					
*Myriophyllum laxum						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	1		Scirpus cyperinus					
Nymphaea odorata	1	1	1	1		*Sesbania					
Nymphoides aquatica						Solidago sp.					
Nyssa sylvatica var. biflora			1	1		Sparganium americanum					
Orontium aquaticum						Spartina bakeri					
Osmunda cinnamomea						Spirodela polyrhiza					
Osmunda regalis						Taxodium sp.		1	1	1	
Panicum hemitomon	1	1	1	1		Thalia geniculata					
Panicum repens						Thelypteris palustris					
Paspalidium geminatum						Triadenum virginicum					
*Paspalum repens						Typha sp.					
Paspalum urvillei						Urochloa mutica (Brachiaria mutica)					
Peltandra sp.						*Utricularia gibba (U. biflora)		1	1	1	
Persea sp.						*Utricularia floridana	0	0	0	0	
Pennisetum purpureum						*Utricularia foliosa					
Phragmites australis						*Utricularia inflata					
Pinus elliotii						*Utricularia purpurea					
Pistia stratioides						*Utricularia cornuta					
Pluchea sp.						*Utricularia radiata					
*Polygonum glabrum (densiflorum)						Vallisneria americana					
*Polygonum hydropiperoides						*Websteria confervoides					
*Polygonum punctatum						Wedelia trilobata (Sphagneticola trilobata)					
*Polygonum						Wolffiella spp.					
Pontederia cordata						Woodwardia virginica					
*Potamogeton diversifolius						Xyris sp.					
*Potamogeton illinoensis						Zizania aquatica					
*Potamogeton pusillus						Zizaniopsis millacea					
*Potamogeton pectinatus (Stuckenia pectinatus)											
Proserpinaca pectinata											
*Rhexia											
*Rhynchospora corniculata											
*Rhynchospora inundata											
Rhynchospora tracyi											
Ricciocarpus natans											
Sabal palmetto											
Sacciolepis striata											
*Sagittaria filiformis											
*Sagittaria graminea											
*Sagittaria isoetiformis											
Sagittaria lancifolia											
Sagittaria latifolia											

SITE NAME: Camel Lake DATE: 7/24/18 TIME: 1425 EST CST DEPTH: 05 ft (m) FIELD ID: Camel Ref (sampling)

SAMPLING TEAM MEMBERS	WQ MEASUREMENTS	DOCUMENTATION	SAMPLE COLLECTION	PRESERVATION	PRESERVATION CHECK
J. Patonhis		X	X	X	X
A. O'Neal		X	X		

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

Parameter Suite	Parameter(s)/Method	Matrix Code*	Preservation**	Preservative Lot #	pH Check	# Bottles ***
Preserved Nutrients	☒ TKN ☒ TP ☒ NO _x ☒ NH ₃ ☐ TOC ☐ Total N ☐ Other: _____	S W	☒ Ice ☒ H ₂ SO ₄	SA7341020	☒ <2	1
Filtered Nutrients	☒ OP ☐ Other: _____	S W	☒ Ice ☒ .45 um Filter			1
Unpreserved Nutrients	☐ NO ₂ ☐ NO ₃ ☐ SO ₄ ☐ Other: _____	W	☐ Ice			
Physical/Aggregate Properties	☐ TDS ☐ TSS ☐ TS ☐ Turbidity ☒ Alk ☒ Color ☐ Other: _____	S W	☒ Ice			1
Chlorophyll	☒ CHL-PPTN-W	S W	☒ Ice			1
BOD	☐ BOD-INHB ☐ BOD-UNIN	W	☐ Ice			
Microbiology	MF: ☐ E coli ☐ T Coli ☐ F Coli ☐ Enter ☐ 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	W	☐ Lugol's			
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	W	☐ HNO ₃		☐ <2	
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				
BaseNeutral / Acid Extractable	☐ W-BNA ☐ W-AE ☐ W-BN ☐ W-PAH ☐ W-FL-PRO ☐ W ☐ Other: _____	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: _____ ☐ W-ACIDHERB ☐ W-CARB	W	☐ Ice ☐ H ₂ SO ₄ ☐ Ice ☐ MCAA			
Purgeables	☐ W-VOC-MS ☐ W-VOC-MS-A	W	☐ Ice ☐ HCl			
Bioassay	Specify Test: _____	W	☐ Ice			
OTHER		W	☐ Other: _____			

Notes: original intent of sampling run was for status LL (Zone 1) LVI (Cow Pen Pond), but site was excluded so this reference LVI picked up. This is why suite of WQ parameters is not typical reference suite.
ions not on analytes list, but usually do them for lakes project

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.)

