

DEP FORM FD 9000-27 LAKE VEGETATION INDEX FIELD SHEET

Waterbody: <u>Lake Sebring</u>		County: <u>Highlands</u>		Date: <u>8/8/23</u>							
Analyst: <u>TC, JC, AL, NH</u>		Signature: <u>Jay C. [unclear]</u>		STORET: <u>1</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	2	5	8	11	Collected? (✓)	SPECIES	2	5	8	11	Collected? (✓)
Acer rubrum		X		X		Gordonia lasianthus					
Acrostichum danaeifolium						Habenaria repens					
Alternanthera philoxeroides	X	X				Hydrilla verticillata					
Andropogon sp.						Hydrocotyle sp.	X	X			
Annona glabra						Hygrophila polysperma					
Azolla filiculoides (A. caroliniana)						*Hypericum fasciculatum					
Baccharis sp.						*Hypericum hypericoides					
Bacopa caroliniana						*Hypericum myrtifolium					
Bacopa monnieri						Ilex cassine					
Bidens laevis						Ipomoea aquatica					
Bidens mitis						Ipomoea sagittata					
Blechnum serrulatum		X				Itea virginica					
Boehmeria cylindrica						Juncus effusus					
Brasenia schreberi						*Juncus marginatus					
Cabomba caroliniana						*Juncus megacephalus					
Casuarina equisetifolia						Juncus repens					
Centella asiatica						*Juncus scirpoides					
Cephalanthus occidentalis						Lachnanthes caroliniana					
Ceratophyllum demersum						Leersia hexandra					
Chara sp.						Landoltia punctata (Spirodela punctata)					
Cladium jamaicense						Lemna sp.					
Cliftonia monophylla						Leucothoe racemosa (Eubotrys racemosa)					
Colocasia esculenta				X		Limnobium spongia					
*Commelina						Limnophila sessiliflora					
Crinum americanum						Liquidambar styraciflua					
*Cyperus alternifolius (C. involucratus)						*Ludwigia arcuata					
Cyperus articulatus						*Ludwigia leptocarpa					
Cyperus blepharoleptos						*Ludwigia linearis					
Cyperus haspan						*Ludwigia octovalvis					
*Cyperus lecontei						*Ludwigia peruviana	X	X		X	
*Cyperus polystachyos						*Ludwigia repens					
*Cyperus odoratus			X			*Ludwigia					
*Cyperus surinamensis						Luziola fluitans (Hydrochloa carolinensis)					
Cyrtilla racemiflora						Lyonia lucida					
Decodon verticillatus						Magnolia virginiana					X
Diodia virginiana						Mayaca fluviatilis					
*Echinochloa crus-galli						Melaleuca quinquenervia	X			X	
*Echinochloa muricatum						Micranthemum glomeratum					
Echinochloa walteri						Micranthemum umbrosum					
Eclipta prostrata (E. alba)						Mikania scandens					
Egeria densa	X	X				Mimosa pigra					
Eichhornia crassipes						Myrica cerifera	X	X	X	X	
*Eleocharis baldwinii						<u>Muscadine Vine</u>		X		X	
Eleocharis cellulosa	X		X			<u>Lustrite Swamp Lythrum</u>	X				
Eleocharis equisetoides						<u>Solidaria</u>					
Eleocharis interstincta											
Eleocharis vivipara											
*Eleocharis											
*Eriocaulon compressum											
*Eriocaulon decangulare											
Eupatorium capillifolium											
*Fuirena											
Fuirena scirpoidea	X										

FORM FD 9000-27: LAKE VEGETATION INDEX FIELD SHEET

Site:						Date:					
SPECIES	2	5	8	11	Collected? (✓)	SPECIES	2	5	8	11	Collected? (✓)
Myriophyllum aquaticum						Sapium sebiferum					
*Myriophyllum heterophyllum						Saururus cernuus					
*Myriophyllum laxum						Schinus terebinthifolius		X			
*Myriophyllum pinnatum						*Schoenoplectus californicus					
Myriophyllum spicatum						*Schoenoplectus pungens					
*Najas filifolia						*Schoenoplectus tabernaemontani (Scirpus validus)					
*Najas guadalupensis	X		X			Scirpus cyperinus					
*Najas minor						*Sesbania	X	X	X		
Nelumbo lutea						Solidago sp.					
Nitella spp.						Sparganium americanum					
Nuphar sp.	X	X	X	X		Spartina bakeri					
Nymphaea odorata						Spirodela polyrhiza					
Nymphoides aquatica						Taxodium sp.		X		X	
Nyssa sylvatica var. biflora						Thalia geniculata					
Orontium aquaticum						Thelypteris palustris					
Osmunda cinnamomea						Triadenum virginicum					
Osmunda regalis						Typha sp.	X	X	X	X	
Panicum hemitomon	C	X	X	X		Urochloa mutica (Brachiaria mutica)			X		
Panicum repens	C	X	X	X	X	*Utricularia gibba (U. biflora)					
Paspalidium geminatum						*Utricularia floridana					
*Paspalum repens						*Utricularia foliosa					
Paspalum urvillei						*Utricularia inflata					
Peltandra sp.						*Utricularia purpurea					
Persea sp.						*Utricularia cornuta					
Pennisetum purpureum				X		*Utricularia radiata					
Phragmites australis						Vallisneria americana					
Pinus elliotii						*Websteria confervoides					
Pistia stratioides			X			Wedelia trilobata (Sphagneticola trilobata)					
Pluchea sp.						Wolffiella spp.					
*Persicaria glabrum (densiflorum)						Woodwardia virginica					
*Persicaria hydropiperoides						Xyris sp.					
*Persicaria punctatum						Zizania aquatica					
*Persicaria						Zizaniopsis milacea					
Pontederia cordata						Cyperus papyrus	X				
*Potamogeton diversifolius						Wedelia		X	X		
*Potamogeton illinoensis						Cyperus fore					
*Potamogeton pusillus											
*Potamogeton pectinatus (Stuckenia pectinatus)											
Proserpinaca pectinata											
*Rhexia											
*Rhynchospora corniculata											
*Rhynchospora inundata											
Rhynchospora tracyi											
Ricciocarpus natans											
Sabal palmetto											
Sacciolepis striata	X										
*Sagittaria filiformis											
*Sagittaria graminea											
*Sagittaria isoetiformis											
Sagittaria lancifolia				X							
Sagittaria latifolia											
Salix caroliniana	X	X	X	X							
Salvinia minima											
Sambucus canadensis											

FLEPPC

Cisma

No fish

Muddy
Sandy

bottom

Culvert in 11
Spraying in 2

DEP FORM FD 9000-31: LAKE OBSERVATION FIELD SHEET

SAMPLE ID: G4SE0173 MACROPHYTE ID: _____ LATITUDE: _____
 COUNTY: Highlands STORET #: _____ LONGITUDE: _____
 DATE: 8/8/23 TIME: _____ SAMPLING AGENCY: SEROC
 SITE NAME: Lake Sebring WBID: 1842
 FIELD ID/NAME: _____ LAKE SIZE: _____ RQ: 2023-07-10-27

WATERSHED / LAKESIDE FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category – from GIS) : Forest/Natural ☐ Silviculture ☐ Field/Pasture ☐ Agricultural ☐ Residential ☐ Commercial ☐ Industrial ☐ Other (Specify) ☐ <u>10</u> <u>90</u>								LANDSCAPE DEVELOPMENT INTENSITY (100 m buffer) LDI:									
Local Watershed Erosion (select one) : ☐ None ☐ Slight ☒ Moderate ☐ Heavy Local Watershed NPS Pollution : ☐ No evidence ☐ Slight ☒ Moderate ☐ Heavy								Artificially Impounded ☐ Yes ☒ No				Land Use Source & Year:					
STORMWATER INPUTS <u>8</u>		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			
		20 19 18 17 16				15 14 13 12 11				10 9 8 7 6				5 4 3 2 1			
LAKESIDE ALTERATIONS <u>2</u>		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)			
		20 19 18 17 16				15 14 13 12 11				10 9 8 7 6				5 4 3 2 1			
BUFFER ZONE <u>4</u>		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			
		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 _____							
Meter Readings: Top: <u>0.3</u> <u>32.9</u> <u>7.51</u> <u>7.32</u> <u>101.9</u> <u>150.6</u> <u>0.07</u> Mid-Depth: <u>2.0</u> <u>31.5</u> <u>7.14</u> <u>6.16</u> <u>82.7</u> <u>149.1</u> <u>0.07</u> Bottom: <u>3.98</u> <u>30.5</u> <u>6.81</u> <u>3.54</u> <u>47.0</u> <u>149.8</u> <u>0.07</u>								Water Surface Oils: ☒ None ☐ Sheen/Slick ☐ Glob ☐ Other _____							
Meter ID: <u>Hodor</u>								Clarity: ☒ Clear ☐ Opaque ☐ Turbid ☐ Slightly Turbid Color: ☒ Clear ☐ Tannic ☐ Green							
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 ☒ ☐ ☐ ☐							
Weather Conditions: <u>Partly Cloudy 90's</u>								Additional Notes: <u>plants sprayed in zone 2. No fish.</u>							
SAMPLING TEAM: <u>JS, AL, NH, TC</u>								SIGNATURE: <u>[Signature]</u>							
DATE: <u>8/8/23</u>															

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

STORET STATION NUMBER:	DATE (M/D/Y) <u>8/8/2023</u>	LAKE NAME <u>Lake Sebring</u>		FIELD ID / NAME:
ECO-REGION:	COUNTY: <u>Highlands</u>	SAMPLING LOCATION/DESCRIPTION:		LAKE SIZE:
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 ☐	Impounded, hydrology of system artificially controlled ☐
HYDROLOGY				
Color	Very clear, uncolored water (benthic sampling appropriate) ☒	Water somewhat tannin stained (benthic sampling appropriate) ☐	Dark, discolored water (water color 20 PCU or higher) ☐	Visibility extremely reduced due to high color ☐
	Optimal	Suboptimal	Marginal	Poor
Secchi <u>12</u>	Secchi >3 m Or VOB 20 19 18 17 16	3 2.6 2.2 1.8 1.4 15 14 13 <u>12</u> 11	1.0 0.9 0.8 0.7 0.6 10 9 8 7 6	0.5 0.4 0.3 0.2 0.1 5 4 3 2 1
Vegetation Quality <u>15</u>	Diverse, expected native vegetation (emergent or submersed), less than 5% nuisance taxa 20 19 18 17 16	Mostly expected native plants, but moderate growths (6%-20% of lake) of nuisance macrophytes, or more than 50% of lake covered with plants <u>15</u> 14 13 12 11	Large masses (21%- 40%) of nuisance macrophytes (e.g., Hydrilla, hyacinth, cattail, etc.) or algal mats 10 9 8 7 6	Lake choked (>40%) with nuisance macrophytes (duckweed, hyacinth, etc.) or algal mats, or few plants present at all (e.g., plants removed) 5 4 3 2 1
Stormwater Inputs <u>8</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 <u>15</u> 14 13 12 11	Moderate direct inputs of stormwater (ditches, pipes, cultivated vegetation 11%-50%) but few BMPs in place 10 9 <u>8</u> 7 6	Much direct input of stormwater (ditches, pipes, cultivated vegetation > 51%) and no or ineffective BMPs in place 5 4 3 2 1
Bottom Substrate Quality <u>16</u>	Diverse mixture of sand, detritus, with small amounts of CPOM/mud/muck. SAV may be present 20 19 18 17 <u>16</u>	Mixture of sand or clay and detritus with higher % CPOM/mud/muck content. SAV may be present 15 14 13 12 11	Moderate layer of CPOM/mud/muck, or hardpacked sand only, or moderate algal growth (mats or Chara) on bottom 10 9 8 7 6	Thick deposits of CPOM, or fine detritus and anaerobic muck/mud/silt, or algal growth or nuisance plants (Hydrilla) cover bottom 5 4 3 2 1
Lakeside Adverse Human Alterations <u>2</u>	Very few man-made structures, roads, or other disturbance adjacent to lake (<10%) 20 19 18 17 16	Moderate disturbance visible (structures, roads or other), 10%-49% lakeside affected 15 14 13 12 11	Many structures, roads or other human disturbance visible (50%-70%) lakeside affected 10 9 8 7 6	Highly developed or disturbed (>70% of lakeside affected) 5 4 3 <u>2</u> 1
Upland Buffer Zone <u>4</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	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 <u>4</u> 3 2 1
Adverse Watershed Land Use <u>10</u>	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 20 19 18 17 16 15 14 13 12 11 <u>10</u> 9 8 7 6 5 4 3 2 1			
TOTAL SCORE <u>67</u>	COMMENTS:			
ANALYSIS DATE: <u>8/8/23</u>	ANALYST: <u>JS, AL, NH, TC</u>		SIGNATURE: <u>Tyler C...</u>	