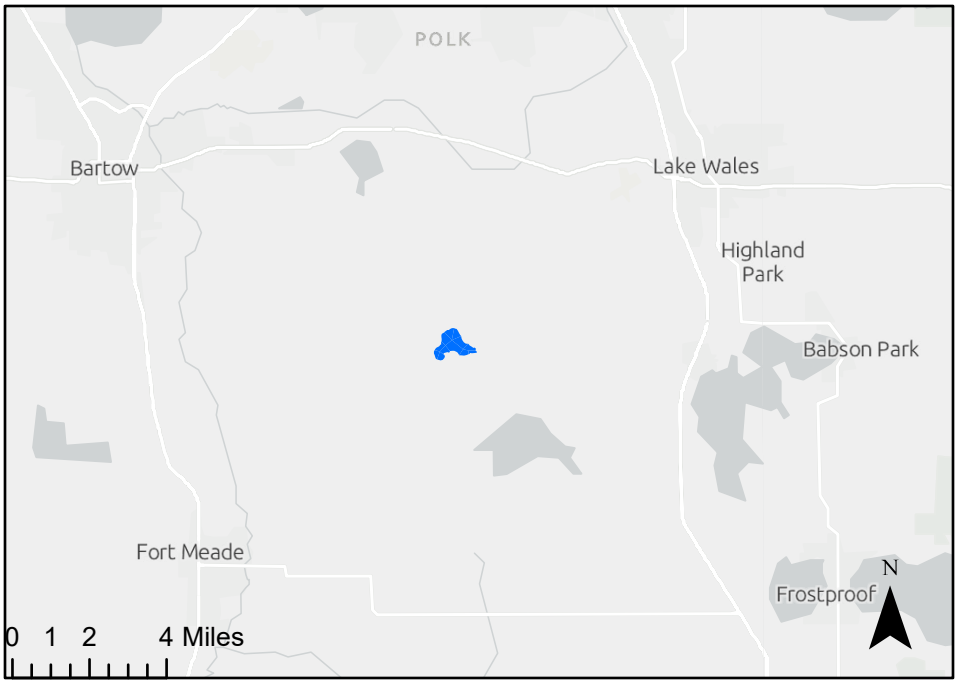
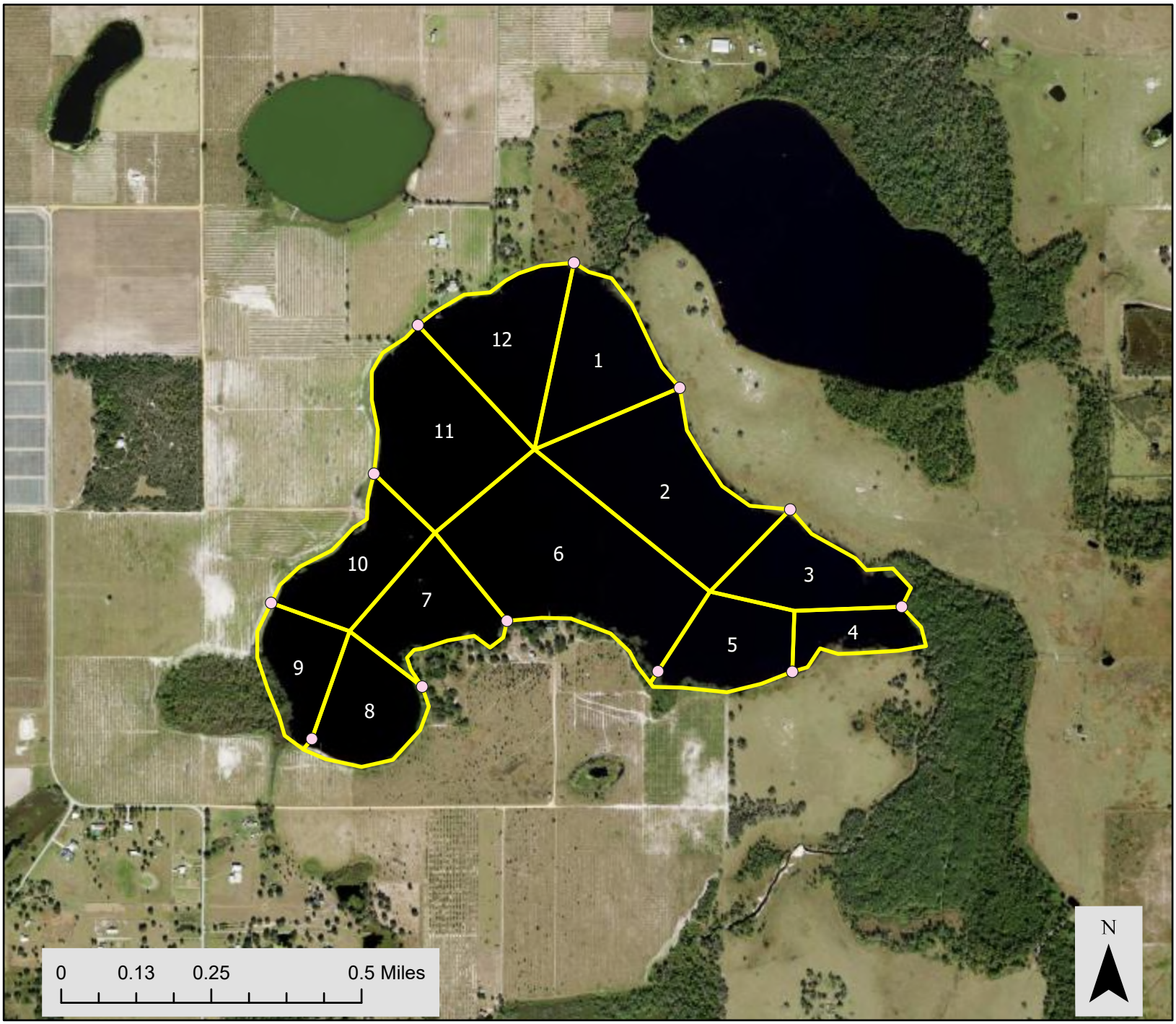


Surveyors Lake
WBID 1647

Sample Date - June 2, 2026
Surface Area - 279 acres
(22,413,455,569 sqft)
100m Landscape Development Intensity - 2.85
Dominant Land Use 100m Buffer -
Forest/Natural (55.16%)
Agricultural (34.2%)
Residential (10.65%)
Lake Vegetation Index - 29
Lake Habitat Assessment - 77
Water Clarity - 0.48m (1.57 ft)



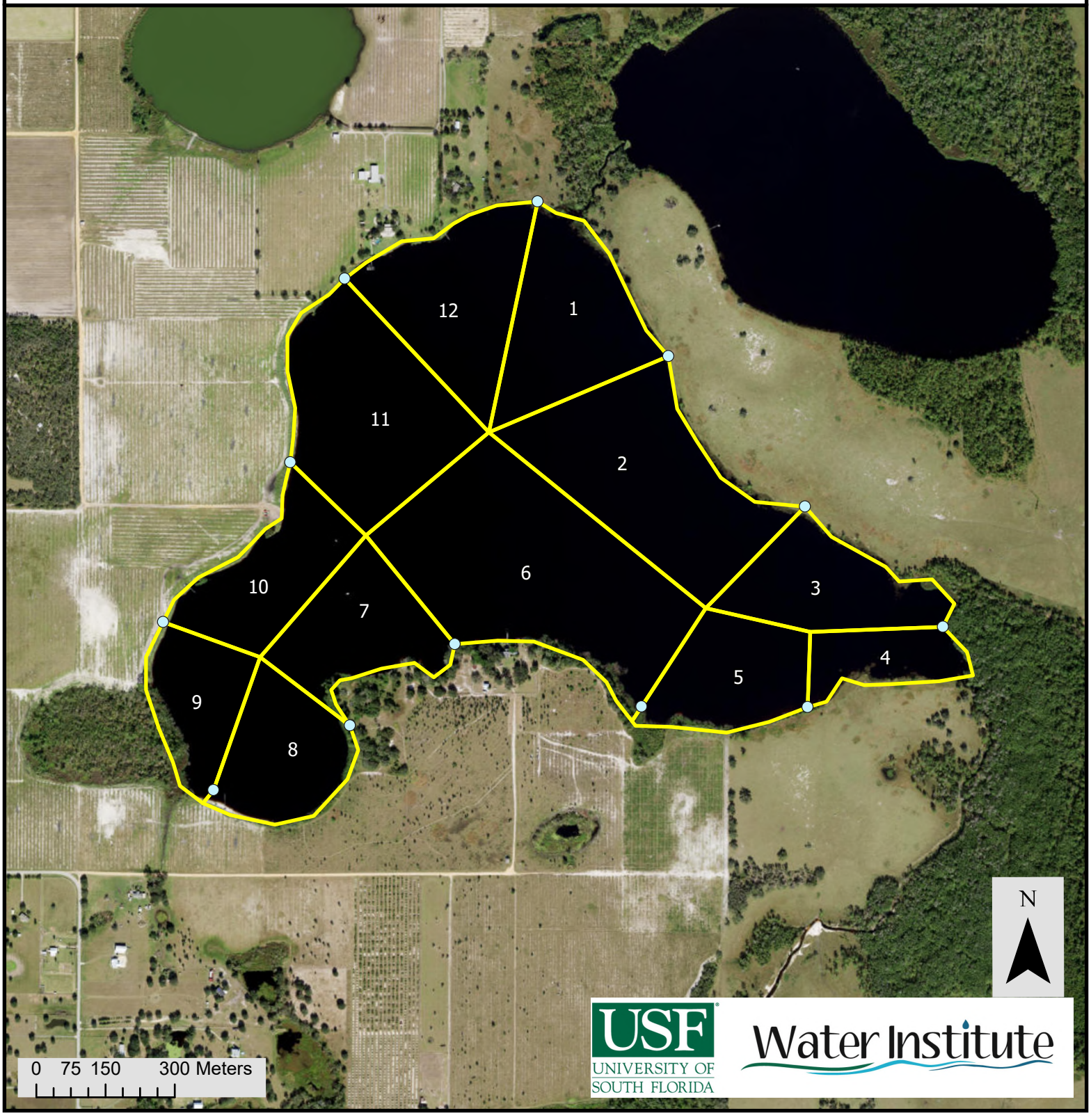
Surveyors Lake
WBID 1647

LVI_Points

LVI_Regions

Sample Date - June 2, 2026
Regions Assessed - (2, 5, 8, 11)
Dominant Species Per Region -
2- Pontederia cordata
5- Ludwigia peruviana
8 - Ludwigia peruviana
11- Ludwigia peruviana
Sambucus nigra

Lake Description
Water Clarity - 0.48 meters (1.57ft) - Turbid
Color - Tannic, Green
Sediment Types
Organic Smooth
Sandy
Lake Vegetation Index - 29



USF UNIVERSITY OF SOUTH FLORIDA Water Institute

DEP FORM FD 9000-31: LAKE OBSERVATION FIELD SHEET

SAMPLE ID: Surveyors | MACROPHYTE ID: | LATITUDE:
COUNTY: Polk | STORET #: | LONGITUDE:
DATE: 6/2/26 | TIME: 10:00 | SAMPLING AGENCY: USFWI
SITE NAME: Surveyors Lake | WBID:
FIELD ID/NAME: Surveyors | LAKE SIZE: | RQ:

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)
55.16%			34.27%	10.65%			

LANDSCAPE DEVELOPMENT INTENSITY (100 m buffer) — LDI: 2.85 — Land Use Source & Year:

Local Watershed Erosion (select one) : ☐ None ☑ Slight ☐ Moderate ☐ Heavy
Local Watershed NPS Pollution : ☐ No evidence ☐ Slight ☑ Moderate ☐ Heavy
Artificially Impounded ☐ Yes ☑ No

STORMWATER INPUTS — 12	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 — 16	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 — 12	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 ☐ 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:	0.25	29.77	8.66	7.28	95.20	192.4	0.09
Mid-Depth:	1.5	29.33	8.4	6.28	82.1	192.6	0.09
Bottom :	2.9	29.25	7.42	3.91	50.1	193.8	0.09
Meter ID:							

Clarity: ☐ Clear ☐ Opaque ☑ Turbid ☐ Slightly Turbid
Color: ☐ Clear ☑ Tannic ☑ Green
SECCHI (M): 0.48 VOB ☐
Total Station Depth (M): 3.2

Sediment Type: (may check more than one) Sample Taken? ☑ Yes ☐ No
☑ Sandy ☐ Organic fibrous (peaty, CPOM) ☐ Vegetated
☐ Sand/Silt ☑ Organic smooth (muck) ☐ Other (Specify): _____

Sediment Odors:
☐ Normal ☐ Other (Specify): _____
☑ Anaerobic

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 : Windy, Sunny

SAMPLING TEAM: | **SIGNATURE:** | **DATE:** 6/2/26

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

STORET STATION NUMBER:	DATE (M/D/Y): 6/2/26	LAKE NAME: Surveyors Lake	FIELD ID / NAME: Surveyors
ECO-REGION:	COUNTY: Polk	SAMPLING LOCATION/DESCRIPTION:	LAKE SIZE:

PARAMETER				
HYDROLOGY	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 ☐
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 5	Secchi >3 m		Secchi(m)			3	2.6	2.2	1.8	1.4	1.0	0.9	0.8	0.7	0.6	0.5	0.4	0.3	0.2	0.1
	Or VOB	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
Vegetation Quality 11	Diverse, expected native vegetation (emergent or submersed), less than 5% nuisance taxa					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					Lake choked (>40%) with nuisance macrophytes (duck-weed, hyacinth, etc.) or algal mats, or few plants present at all (e.g., plants removed)				
	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
Stormwater Inputs 12	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
Bottom Substrate Quality 8	Diverse mixture of sand, detritus, with small amounts of CPOM/mud/muck. SAV may be present					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					Thick deposits of CPOM, or fine detritus and anaerobic muck/mud/silt, or algal growth or nuisance plants (Hydrilla) cover bottom				
	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
Lakeside Adverse Human Alternations 16	Very few man-made structures, roads, or other disturbance adjacent to lake (<10%)					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
Upland Buffer Zone 12	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
Adverse Watershed Land Use 13	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	10	9	8	7	6	5	4	3	2	1

TOTAL SCORE	77	COMMENTS:

ANALYSIS DATE: 6/2/26	ANALYST: David Eilers	SIGNATURE:

DEP FORM FD 9000-27 LAKE VEGETATION INDEX FIELD SHEET

Waterbody: Sorveyors	County: Polk	Date: 6/2/25
Analyst: David Ellers	Signature:	STORET:

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		1	1			Habenaria repens					
Alternanthera philoxeroides	1	1	1	1		**Hydrilla verticillata**					
Andropogon sp.						Hydrocotyle sp.	1	1	1	1	
Azolla filiculoides (A. caroliniana)						**Hygrophila polysperma**					
Baccharis sp. hamiltera			1	1		*Hypericum fasciculatum					
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	1	1			
Cabomba caroliniana						*Juncus marginatus					
Casuarina equisitifolia						*Juncus megacephalus					
Centella asiatica						Juncus repens					
Cephalanthus occidentalis			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 _____						Limnobium spongia					
Crinum americanum						**Limnophila sessiliflora**					
***Cyperus alternifolius** (C. involucratus)						Liquidamber styraciflua					
Cyperus articulatus						*Ludwigia arcuata	1	1			
Cyperus haspan						*Ludwigia leptocarpa					
*Cyperus lecontei						*Ludwigia linearis					
*Cyperus polystachyos						*Ludwigia octovalvis					
*Cyperus odoratus						***Ludwigia peruviana**		D	D	C	
*Cyperus surinamensis						*Ludwigia repens					
Cyrilla racemiflora						*Ludwigia _____					
Decodon verticillatus						Luziola fluitans (Hydrochloa carolinensis)					
Diodia virginiana						Lyonia lucida					
*Echinochloa crus-galli						Magnolia virginiana	1	1			
*Echinochloa muricatum						Mayaca fluviatilis					
Echinochloa walteri						**Melaleuca quinquenervia**					
Eclipta prostrata (E. alba)	1					Micranthemum glomeratum					
Egeria densa						Micranthemum umbrosum					
Eichhornia crassipes						Mikania scandens		1	1		
*Eleocharis baldwinii						**Mimosa pigra**					
*Eleocharis _____						Myrica cerifera		1	1		
Eleocharis cellulosa						Erichetes hieraclifolia	1	1	1		
Eleocharis equisetoides						Linderia grandiflora	1				
Eleocharis interstincta	1					Pilularia capillacea	1		1		
*Eriocaulon compressum						Crisium nuttallii	1	1			
*Eriocaulon decangulare						Cinnamomum camphora		1			
Eupatorium capillifolium	1	1	1	1		Vitis rotundifolia		1	1	1	
*Fuirena _____						Hibiscus grandiflora		1			
Fuirena scirpoidea						Musa			1		
Gordonia lasianthus		1				Madaca bittermelon		1	1	1	

FORM FD 9000-27: LAKE VEGETATION INDEX FIELD SHEET

Site: Surveyor 9 | Date: 6/2/26

SPECIES	2	5	8	11	Collected? (√)	SPECIES	2	5	8	11	Collected? (√)
Myriophyllum aquaticum						Salix caroliniana		1	1	1	
*Myriophyllum heterophyllum						**Salvinia minima**					
*Myriophyllum laxum						Sambucus canadensis		1	1	C	
*Myriophyllum pinnatum						**Sapium sebiferum**					
Myriophyllum spicatum						Saururus cernuus					
*Najas filifolia						**Schinus terebinthifolius**		1	1		
*Najas guadalupensis						*Schoenoplectus californicus					
*Najas minor						*Schoenoplectus pungens					
Nelumbo lutea						*Schoenoplectus tabernaemontani (Scirpus validus)					
Nitella spp.						Scirpus cubensis (Oxycaryon cubense)					
Nuphar sp.						Scirpus cyperinus					
Nymphaea odorata						*Sesbania					
Nymphoides aquatica						Solidago sp.					
Nyssa sylvatica var. biflora						Sparganium americanum					
Orontium aquaticum						Spartina bakeri		1			
Osmunda cinnamomea						Spirodela polyrhiza					
Osmunda regalis						Taxodium sp.				1	
Panicum hemitomon	1	1	1	1		Thalia geniculata					
Panicum repens	1	1	1	1		Thelypteris ~~palustris~~ interrupta			1		
Paspalidium geminatum						Triadenum virginicum					
*Paspalum repens						Typha sp.	1				
Paspalum urvillei				1		**Urochloa mutica (Brachiaria mutica)**			1	1	
Peltandra sp.						*Utricularia gibba (U. biflora)					
Persea sp.						*Utricularia floridana					
Pennisetum purpureum						*Utricularia foliosa					
Phragmites australis						*Utricularia inflata					
Pinus elliottii						*Utricularia purpurea					
Pistia stratioides	1	1	1	1		*Utricularia cornuta					
Pluchea sp.						*Utricularia radiata					
*Polygonum glabrum (densiflorum)				1		Vallisneria americana					
*Polygonum hydropiperoides	1	1	1	1		*Websteria confervoides					
*Polygonum punctatum						**Wedelia trilobata (Sphagneticola trilobata)**					
*Polygonum						Wolffiella spp.					
Pontederia cordata	D	1	1	1		Woodwardia virginica					
*Potamogeton diversifolius						Xyris sp.					
*Potamogeton illinoensis						Zizania aquatica					
*Potamogeton pusillus						Zizaniopsis milacea					
*Potamogeton pectinatus (Stuckenia pectinatus)											
Proserpinaca pectinata											
*Rhexia											
*Rhynchospora corniculata											
*Rhynchospora inundata											
Rhynochospora tracyi											
Ricciocarpus natans											
Sabal palmetto											
Sacciolepis striata											
*Sagittaria filiformis											
*Sagittaria graminea											
*Sagittaria isoetiformis											
Sagittaria lancifolia	1										
Sagittaria latifolia											