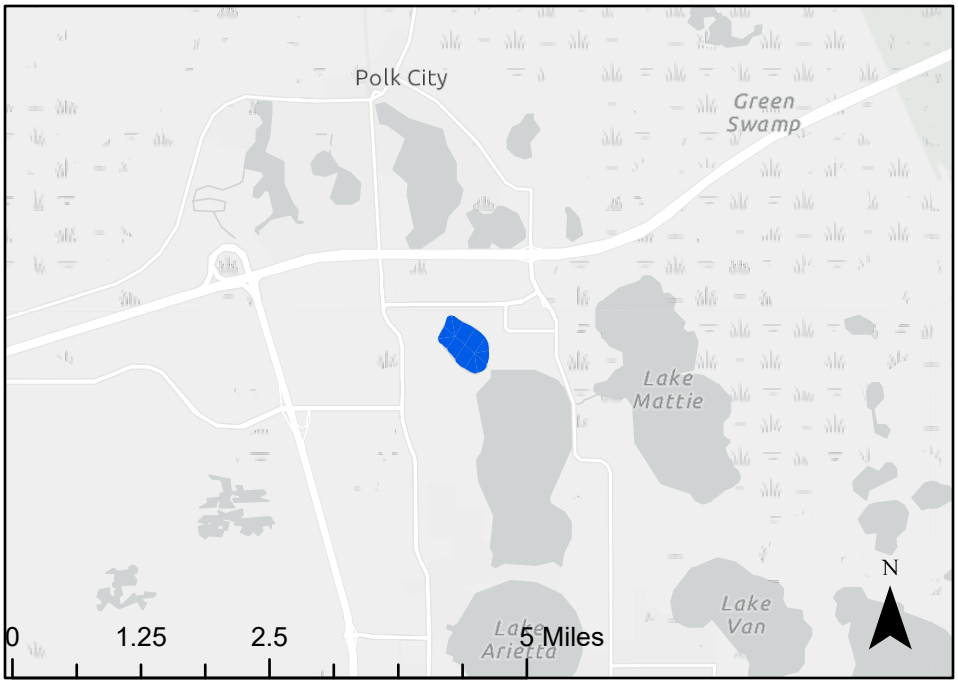
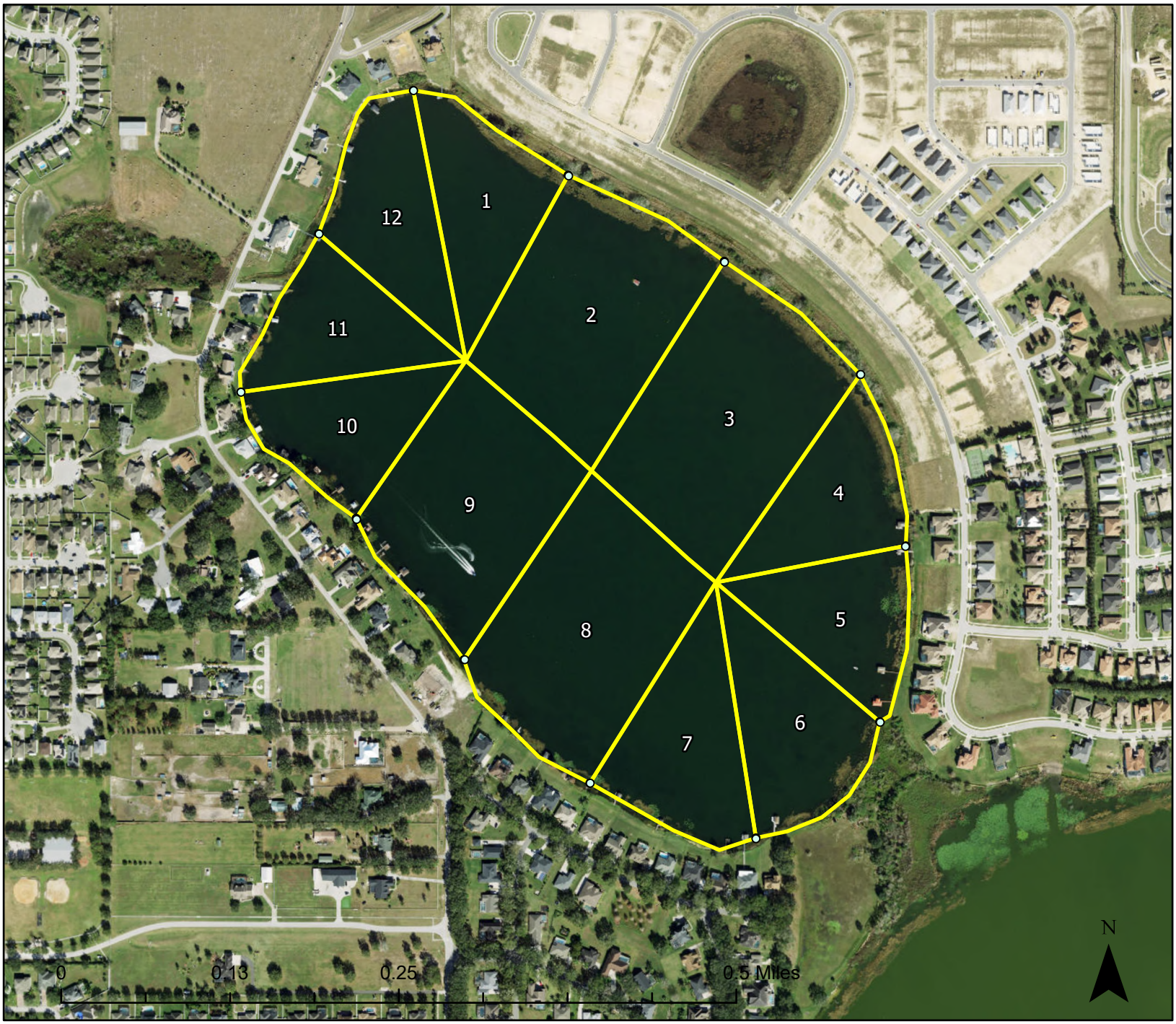


Lake Tennessee
WBID 1484A

Sample Date - April 22, 2026
Surface Area - 108 acres (4,681,252 sqft)
100m Landscape Development Intensity - 5.109
Dominant Land Use 100m Buffer -
Residential (58.21%)
Natural (4.6%)
Lake Vegetation Index - 53
Lake Habitat Assessment - 76
Water Clarity - 3.25 m (10.66 ft)

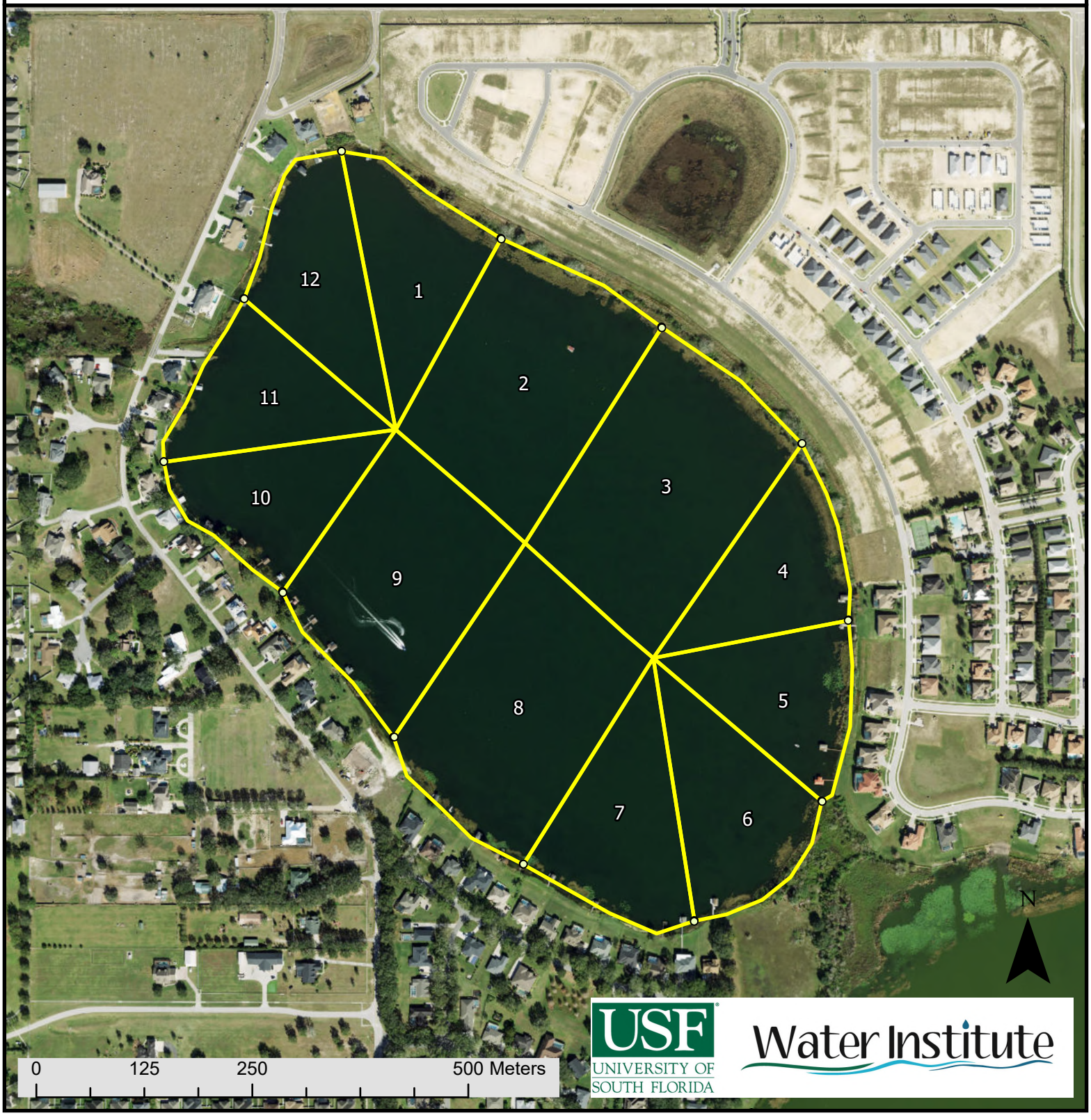


Lake Tennessee
WBID 1484A

LVI_Points8
LAKE TENNESSEE

Sample Date - April 22, 2026
Regions Assessed - (2, 5, 8, 11)
Dominant Species Per Region -
3 - Vallisneria americana
6 - Vallisneria americana
9 - Vallisneria americana
12 - Vallisneria americana

Lake Description
Water Clarity - 3.5 meters
(10.66 ft)
- clear
Color - Clear
Sediment Types
Vegetated
Organic Smooth
Lake Vegetation Index - 53



USF UNIVERSITY OF SOUTH FLORIDA
Water Institute

DEP FORM FD 9000-31: LAKE OBSERVATION FIELD SHEET

SAMPLE ID: Tennessee | MACROPHYTE ID: | LATITUDE: 28.1452711 °N
COUNTY: Polk | STORET #: | LONGITUDE: 81.8108025 °W
DATE: 4/22/26 | TIME: 10:00 | SAMPLING AGENCY: USF Tech
SITE NAME: Lake Tennessee | WBID: 1484A
FIELD ID/NAME: Tennessee | LAKE SIZE: 107 | 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)
4.6%				58.21%			

LANDSCAPE DEVELOPMENT INTENSITY (100 m buffer)
LDI: 5.109
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 9	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 5	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 7	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	24.79	8.33	8.14	97.6	207.7	0.10
Mid-Depth:	2.18	24.76	8.35	8.2	98.3	208.1	0.10
Bottom :	3.88	24.70	8.14	8.04	96.2	208.3	0.10

Meter ID:

Clarity: ☑ Clear ☐ Opaque ☐ Turbid ☐ Slightly Turbid
Color: ☑ Clear ☐ Tannic ☐ Green

SECCHI (M) 3.25 | VOB ☐ | Total Station Depth (M) 4.15

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 :

SAMPLING TEAM: David Eilers | SIGNATURE: [signature] | DATE: 4/22/26

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

STORET STATION NUMBER:	DATE (M/D/Y): 4/22/26	LAKE NAME: Lake Tennessee	FIELD ID / NAME: Tennessee
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 17	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 12	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 9	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 16	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 5	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 7	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 10	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	76	COMMENTS:

ANALYSIS DATE: 4/22/26	ANALYST: David E. Ilers	SIGNATURE:

DEP FORM FD 9000-27 LAKE VEGETATION INDEX FIELD SHEET

Waterbody: Lake Tennessee	County: Polk	Date: 4/22/26
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	1	1		Habenaria repens					
Alternanthera philoxeroides		1				**Hydrilla verticillata**	1	1	1	1	
Andropogon sp.						Hydrocotyle sp.	1	1	1	1	
Azolla filiculoides (A. caroliniana)						**Hygrophila polysperma**					
Baccharis sp. hamifolia		1		1		*Hypericum fasciculatum					
Bacopa caroliniana						*Hypericum hypericoides					
Bacopa monnieri				r		*Hypericum myrtifolium					
Bidens laevis						Ilex cassine					
Bidens mitis						**Ipomoea aquatica**					
Blechnum serrulatum						Ipomoea sagittata					
Boehmeria cylindrica			1	1		Itea virginica					
Brasenia schreberi						Juncus effusus					
Cabomba caroliniana						*Juncus marginatus					
Casuarina equisitifolia						*Juncus megacephalus					
Centella asiatica						Juncus repens					
Cephalanthus occidentalis						*Juncus scirpoides					
Ceratophyllum demersum	1	1				Lachnanthes caroliniana					
Chara sp.						Leersia hexandra					
Cladium jamaicense	1	1				**Landoltia punctata (Spirodela punctata)**					
Cliftonia monophylla						Lemna sp.					
Colocasia esculenta	1		1	1		Leucothoe racemosa (Eubotrys racemosa)					
*Commelina						Limnobium spongia					
Crinum americanum						**Limnophila sessiliflora**					
***Cyperus alternifolius** (C. involucratus)						Liquidamber styraciflua					
Cyperus articulatus						*Ludwigia arcuata					
Cyperus haspan						*Ludwigia leptocarpa			1	1	
*Cyperus lecontei						*Ludwigia linearis					
*Cyperus polystachyos				1		*Ludwigia octovalvis				1	
*Cyperus odoratus				1		***Ludwigia peruviana**	1	1	1	1	
*Cyperus surinamensis						*Ludwigia repens					
Cyrilla racemiflora						*Ludwigia					
Decodon verticillatus						Luziola fluitans (Hydrochloa carolinensis)					
Diodia virginiana						Lyonia lucida					
*Echinochloa crus-galli						Magnolia virginiana					
*Echinochloa muricatum						Mayaca fluviatilis					
Echinochloa walteri						**Melaleuca quinquenervia**					
Eclipta prostrata (E. alba)						Micranthemum glomeratum					
Egeria densa						Micranthemum umbrosum					
Eichhornia crassipes						Mikania scandens			1	1	
*Eleocharis baldwinii		1				**Mimosa pigra**					
*Eleocharis						Myrica cerifera	1	1		1	
Eleocharis cellulosa						Eriocaulon compressum	1	1			
Eleocharis equisetoides						Pilularia capillaceum			1	1	
Eleocharis interstincta											
*Eriocaulon compressum											
*Eriocaulon decangulare											
Eupatorium capillifolium		1	1	1							
*Fuirena											
Fuirena scirpoidea											
Gordonia lasianthus											

FORM FD 9000-27: LAKE VEGETATION INDEX FIELD SHEET

Site: Lake Temessee | Date: 4/22/26

SPECIES	2	5	8	4	Collected? (√)	SPECIES	2	5	8	4	Collected? (√)
Myriophyllum aquaticum						Salix caroliniana	1	1	1	1	
*Myriophyllum heterophyllum						**Salvinia minima**					
*Myriophyllum laxum						Sambucus canadensis	1	1	1		
*Myriophyllum pinnatum						**Sapium sebiferum**					
Myriophyllum spicatum						Saururus cernuus					
*Najas filifolia						**Schinus terebinthifolius**		1		1	
*Najas guadalupensis			1			*Schoenoplectus californicus					
*Najas minor						*Schoenoplectus pungens					
Nelumbo lutea						*Schoenoplectus tabernaemontani (Scirpus validus)		1			
Nitella spp.	1	1				Scirpus cubensis (Oxycaryon cubense)	1			1	
Nuphar sp.		1	1	1		Scirpus cyperinus					
Nymphaea odorata						*Sesbania					
Nymphoides aquatica						Solidago sp.					
Nyssa sylvatica var. biflora						Sparganium americanum					
Orontium aquaticum						Spartina bakeri					
Osmunda cinnamomea						Spirodela polyrhiza					
Osmunda regalis						Taxodium sp.			1	1	
Panicum hemitomon	1		1			Thalia geniculata					
Panicum repens	1	1	1	1		Thelypteris ~~palustris~~ luteriupta	1	1			
Paspalidium geminatum						Triadenum virginicum					
*Paspalum repens						Typha sp.	1	1	1	1	
Paspalum urvillei						**Urochloa mutica (Brachiaria mutica)**			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						*Utricularia cornuta					
Pluchea sp.						*Utricularia radiata					
*Polygonum glabrum (densiflorum)						Vallisneria americana	D	D	D	D	
*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 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	1	1	1							
Sagittaria latifolia											