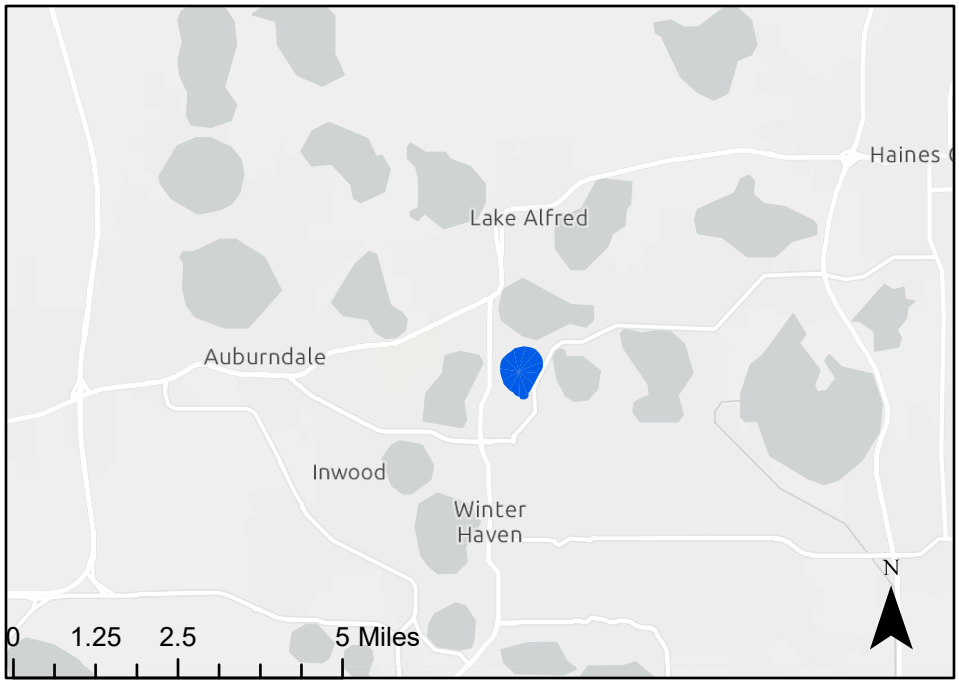
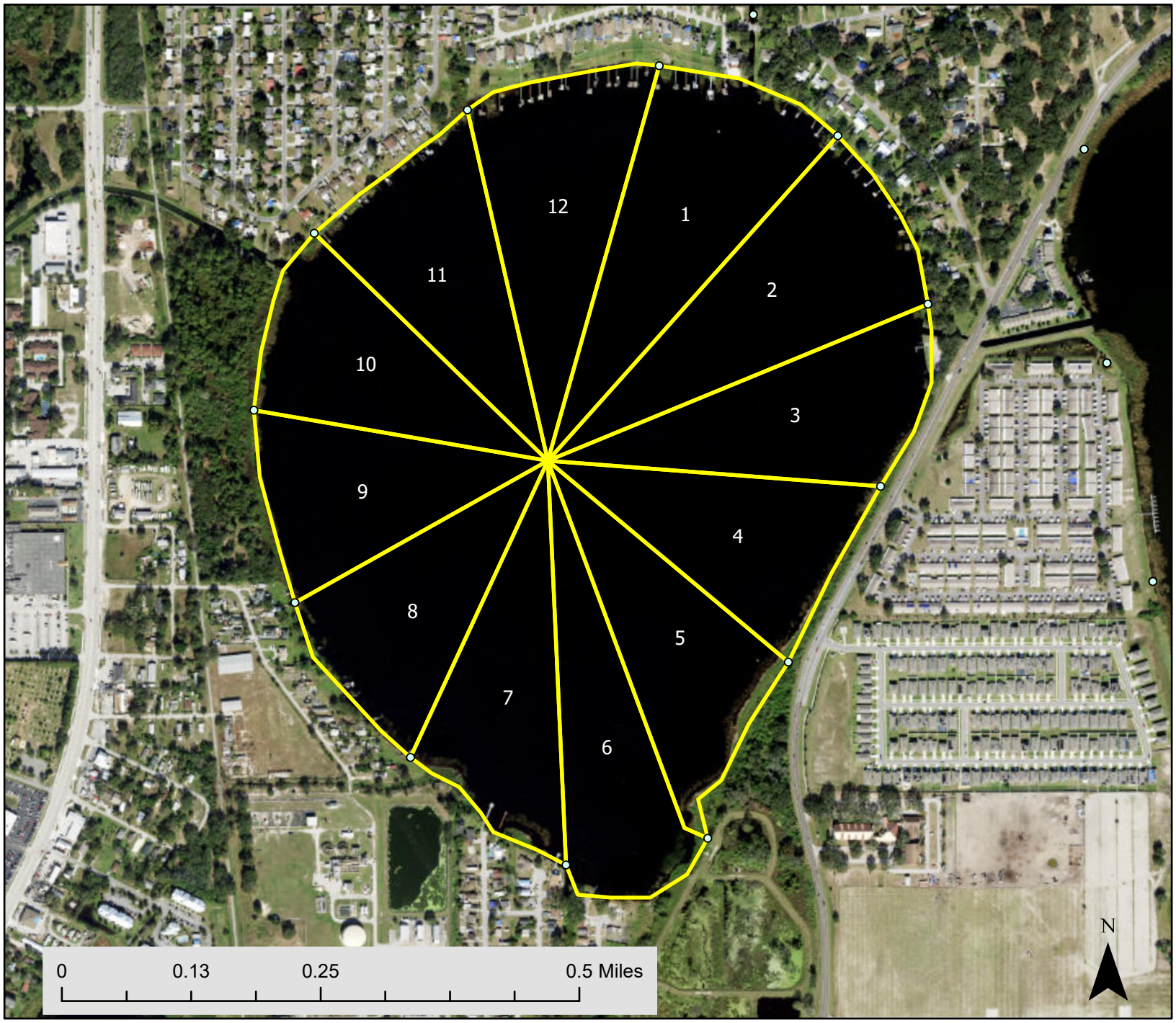


Lake Conine
WBID 1488U

Sample Date - April 21, 2026
Surface Area - 238 acres (10375993 sqft)
100m Landscape Development
Intensity - 6.4
Dominant Land Use 100m Buffer -
Residential (73.25%)
Natural (22.32%)
Industrial (3.2%)
Lake Vegetation Index - 37
Lake Habitat Assessment - 64
Water Clarity - 0.55 m (1.8 ft)



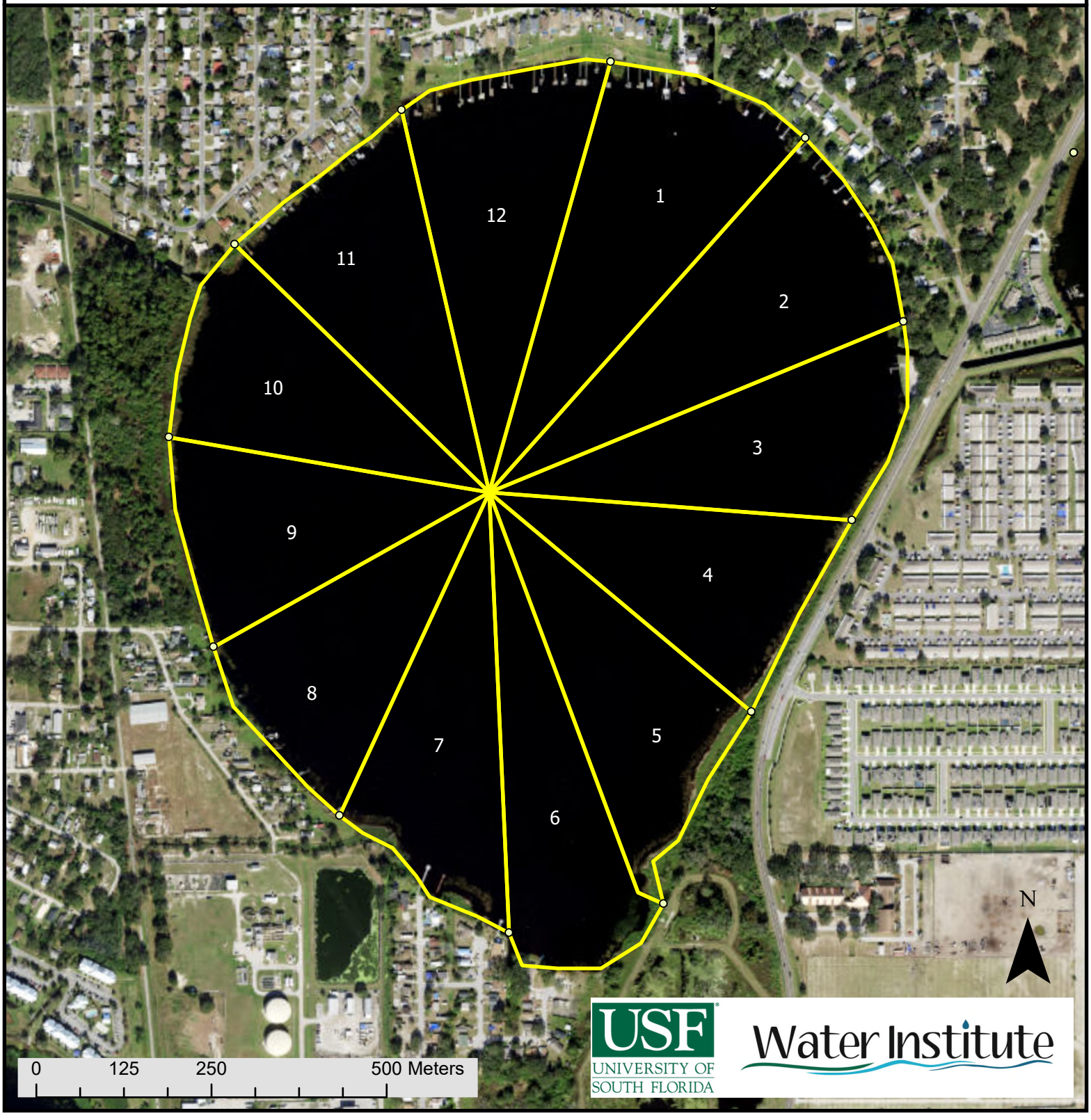
Lake Conine
WBID 1488U

LVI_Points8

LAKE CONINE

Sample Date - April 21, 2026
Regions Assessed - (2, 5, 8, 11)
Dominant Species Per Region -
2 - Vallisneria americana, Potamogeton illnoensis
5 - Vallisneria americana, Typha sp.
8 - Vallisneria americana, Typha sp.
11 - Vallisneria americana, Ceratophyllum demersum

Lake Description
Water Clarity - 0.55 meters (10.66 ft) - clear
Color - Clear
Sediment Types
Vegetated
Organic Smooth
Sand/Slit
Organic Fibrous
Lake Vegetation Index - 37



USF UNIVERSITY OF SOUTH FLORIDA
Water Institute

DEP FORM FD 9000-31: LAKE OBSERVATION FIELD SHEET

SAMPLE ID: Conine
COUNTY: Polk
DATE: 4/21/26
SITE NAME: Lake Conine
FIELD ID/NAME: Conine

MACROPHYTE ID:
STORET #:
TIME: 10:00

LATITUDE: 28.0595934
LONGITUDE: -81.7251124
SAMPLING AGENCY: USFWS
WBID: 1488U
LAKE SIZE: 238 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)
22.32				73.25%		3%	

LANDSCAPE DEVELOPMENT INTENSITY (100 m buffer)
LDI: 6.429

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 11	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 9	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 6	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:	0.26	24.28	8.79	8.69	102.7	244.5	0.11
Mid-Depth:	1.91	24.25	8.71	8.63	95.5	244.7	0.11
Bottom :	3.35	24.61	7.87	5.79	68.4	249.2	0.11

Meter ID:

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

SECCHI (M) 0.55
VOB ☐
Total Station Depth (M) 3.9

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

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 Shreya Sarinas
SIGNATURE:
DATE: 4/21/26

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

STORET STATION NUMBER:	DATE (M/D/Y) 4/21/26	LAKE NAME Lake Conine	FIELD ID / NAME: Conine
ECO-REGION:	COUNTY: Pa/K	SAMPLING LOCATION/DESCRIPTION: Lake Conine	LAKE SIZE: 238

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 Or VOB	20	19	18	17	16	Secchi(m) 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	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	15	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 (duck-weed, hyacinth, etc.) or algal mats, or few plants present at all (e.g., plants removed)	5	4	3	2	1
Stormwater Inputs 11	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	15	14	13	12	11	Moderate direct inputs of stormwater (ditches, pipes, cultivated vegetation 11%-50%) but few BMPs in place	10	9	8	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 11	Diverse mixture of sand, detritus, with small amounts of CPOM/mud/muck. SAV may be present	20	19	18	17	16	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 Alternations 9	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	2	1
Upland Buffer Zone 6	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	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	64	COMMENTS:

ANALYSIS DATE: 4/21/26	ANALYST: David Eilers	SIGNATURE:

DEP FORM FD 9000-27 LAKE VEGETATION INDEX FIELD SHEET

Waterbody: Lake Conine	County: Polk	Date: 4/21/26
Analyst: D Eilers	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		**Hydrilla verticillata**	1	1	1		
Andropogon sp.						Hydrocotyle sp.	1	C	1	1	
Azolla filiculoides (A. caroliniana)						**Hygrophila polysperma**					
Baccharis sp.						*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					
Cabomba caroliniana						*Juncus marginatus					
Casuarina equisitifolia						*Juncus megacephalus					
Centella asiatica						Juncus repens					
Cephalanthus occidentalis		1				*Juncus scirpoides					
Ceratophyllum demersum	1	1	1	C		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					
Cyperus haspan						*Ludwigia leptocarpa				1	
*Cyperus lecontei						*Ludwigia linearis					
*Cyperus polystachyos	1					*Ludwigia octovalvis				1	
*Cyperus odoratus						***Ludwigia peruviana**		1		1	
*Cyperus surinamensis	1					*Ludwigia repens					
Cyrilla racemiflora						*Ludwigia Rotala				1	
Decodon verticillatus						Luziola fluitans (Hydrochloa carolinensis)					
Diodia virginiana						Lyonia lucida					
*Echinochloa crus-galli						Magnolia virginiana					
*Echinochloa muricatum						Mayaca fluviatilis					
Echinochloa walteri	1					**Melaleuca quinquenervia**					
Eclipta prostrata (E. alba)						Micranthemum glomeratum					
Egeria densa						Micranthemum umbrosum					
Eichhornia crassipes	1	1	1	1		Mikania scandens	1	1		1	
*Eleocharis baldwinii						**Mimosa pigra**					
*Eleocharis						Myrica cerifera		1			
Eleocharis cellulosa						Ptilimnium capillaceum	1				
Eleocharis equisetoides						Split-leaf Philodendron	1				
Eleocharis interstincta											
*Eriocaulon compressum											
*Eriocaulon decangulare											
Eupatorium capillifolium	1			1							
*Fuirena											
Fuirena scirpoidea											
Gordonia lasianthus											

FORM FD 9000-27: LAKE VEGETATION INDEX FIELD SHEET

Site: Canine | Date: 4/21/26

SPECIES	2	5	8	11	Collected? (√)
Myriophyllum aquaticum					
*Myriophyllum heterophyllum					
*Myriophyllum laxum					
*Myriophyllum pinnatum					
Myriophyllum spicatum					
*Najas filifolia					
*Najas guadalupensis	1				
*Najas minor					
Nelumbo lutea					
Nitella spp.					
Nuphar sp.		1			
Nymphaea odorata					
Nymphoides aquatica					
Nyssa sylvatica var. biflora					
Orontium aquaticum					
Osmunda cinnamomea					
Osmunda regalis					
Panicum hemitomon					
Panicum repens	1	1	1	1	
Paspalidium geminatum					
*Paspalum repens					
Paspalum urvillei					
Peltandra sp.					
Persea sp.					
Pennisetum purpureum					
Phragmites australis					
Pinus elliottii					
Pistia stratioides					
Pluchea sp. baccharis	1				
*Polygonum glabrum (densiflorum)				1	
*Polygonum hydropiperoides					
*Polygonum punctatum					
*Polygonum _____					
Pontederia cordata	1				
*Potamogeton diversifolius					
*Potamogeton illinoensis	C			1	
*Potamogeton pusillus					
*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	
Sagittaria latifolia					

SPECIES	2	5	8	11	Collected? (√)
Salix caroliniana		1		1	
Salvinia minima					
Sambucus canadensis			1	1	
Sapium sebiferum					
Saururus cernuus					
Schinus terebinthifolius	1	1		1	
*Schoenoplectus californicus					
*Schoenoplectus pungens					
*Schoenoplectus tabernaemontani (Scirpus validus)					
Scirpus cubensis (Oxycaryon cubense)					
Scirpus cyperinus					
*Sesbania _____					
Solidago sp.					
Sparganium americanum					
Spartina bakeri					
Spirodela polyrhiza					
Taxodium sp.	1				
Thalia geniculata					
Thelypteris ~~palustris~~ 'interrupta		1			
Triadenum virginicum					
Typha sp.	1	C	C	1	
Urochloa mutica (Brachiaria mutica)			1		
*Utricularia gibba (U. biflora)					
*Utricularia floridana					
*Utricularia foliosa					
*Utricularia inflata					
*Utricularia purpurea					
*Utricularia cornuta					
*Utricularia radiata					
Vallisneria americana	C	C	C	C	
*Websteria confervoides					
Wedelia trilobata (Sphagneticola trilobata)					
Wolffiella spp.					
Woodwardia virginica					
Xyris sp.					
Zizania aquatica					
Zizaniopsis milacea					