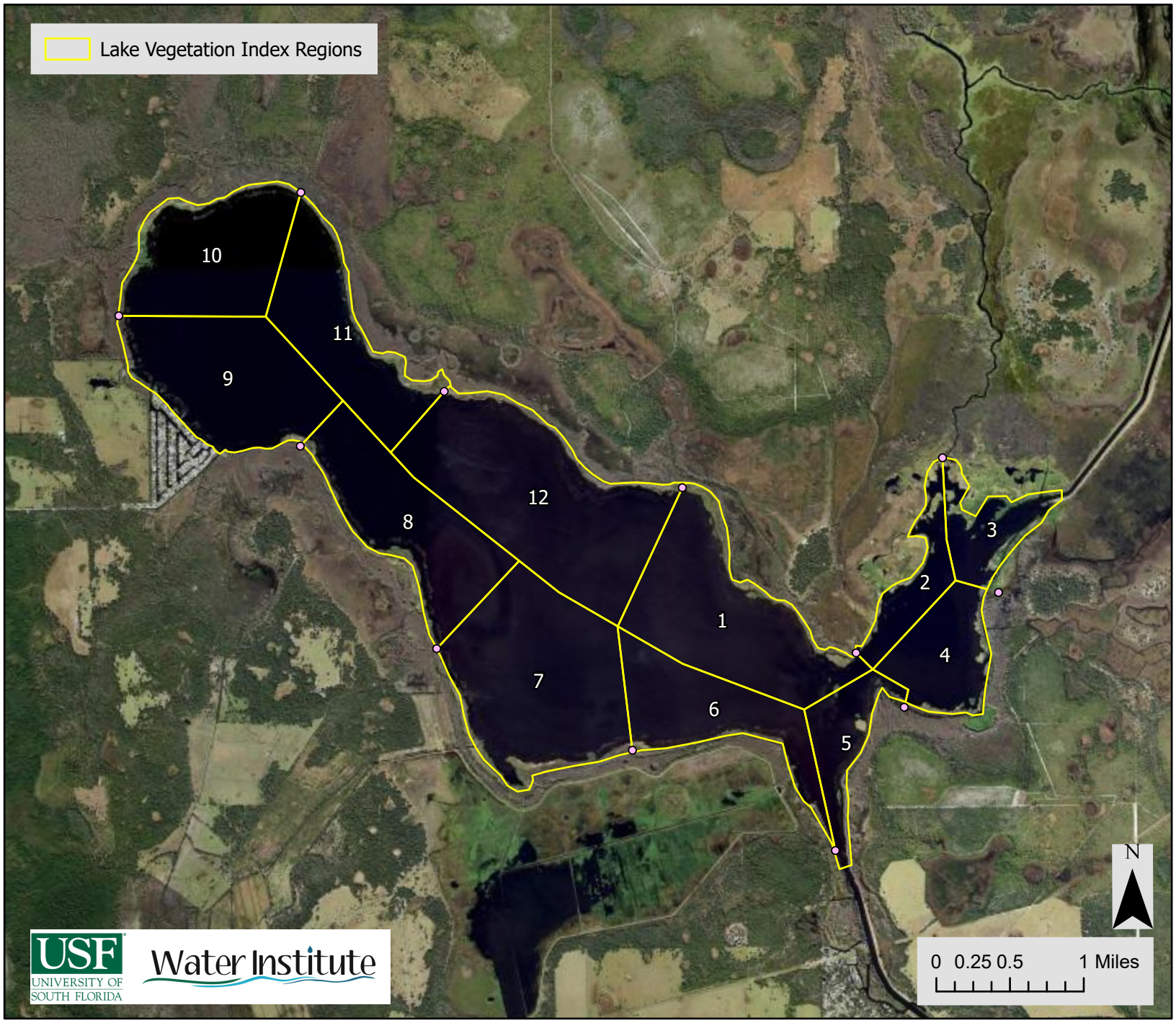
Lake Hatchineha
WBID 1472B

Sample Date - August 11, 2026
Surface Area - 6,611 acres (287,910,161 sqft)
100m Landscape Development
Intensity - 1.15
Dominant Land Use 100m Buffer
Natural (97%)
Residential (2%)
Lake Vegetation Index - 55
Lake Habitat Assessment - 111
Water Clarity - 0.82 m (2.7 ft)



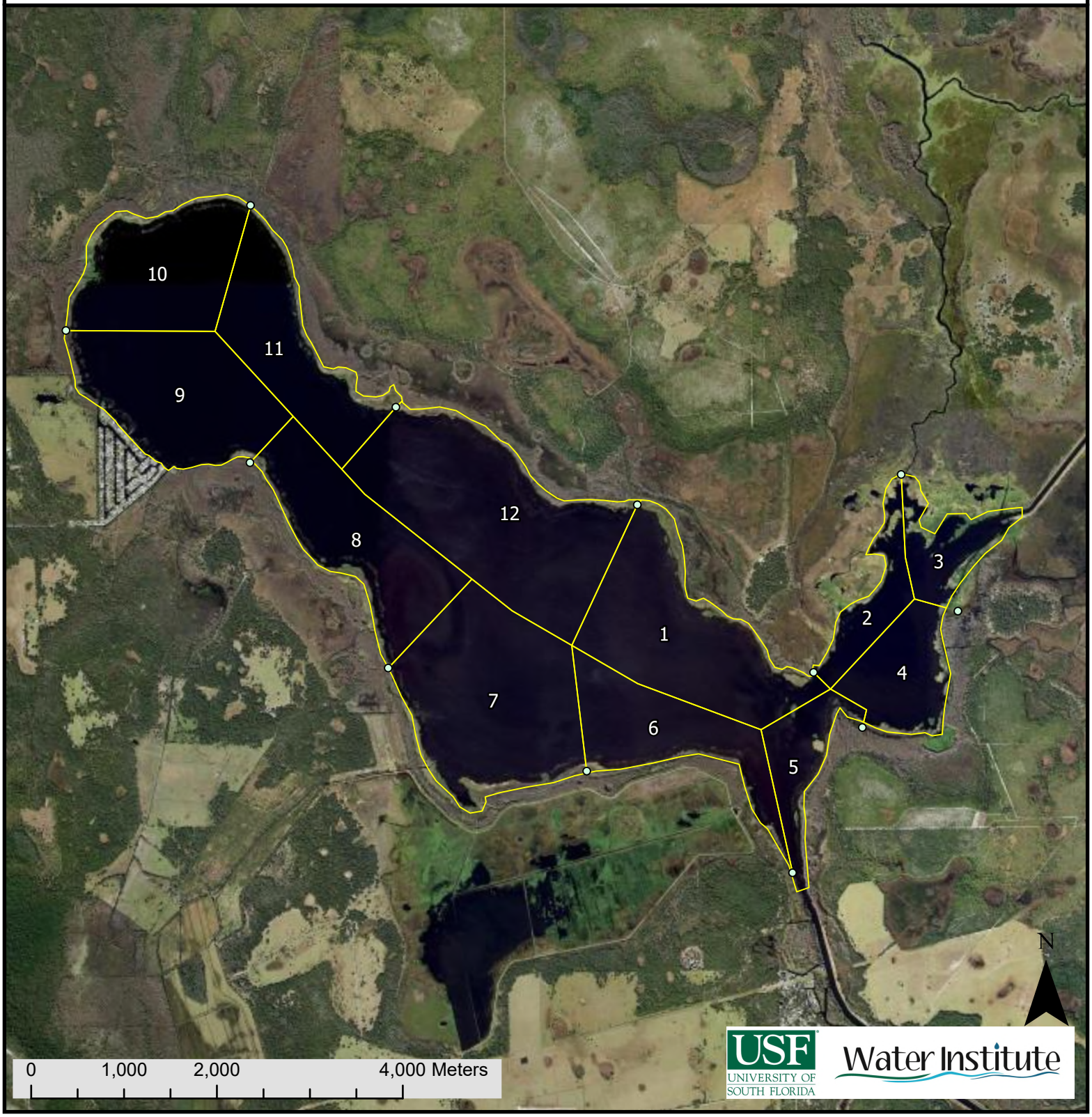


Lake Hatchineha
WBID 1472B

Lake Vegetation Index Regions

Sample Date - August 11, 2026
Regions Assessed - (1, 4, 7, 10)
Dominant Species Per Region -
1 - Paspalidium geminatum, Schoenoplectus californicus
4 - Nuphar
7 - Paspalidium geminatum, Schoenoplectus californicus
10 - Paspalidium geminatum, Schoenoplectus californicus

Lake Description
Water Clarity - 0.82 meters (2.69ft) - Turbid
Color - Tannic
Sediment Types
Sandy
Organic fibrous (CPOM)
Organic smooth (muck)
Vegetated
Lake Vegetation Index - 55



DEP FORM FD 9000-31: LAKE OBSERVATION FIELD SHEET

SAMPLE ID: Hatchineha 26 | MACROPHYTE ID: | LATITUDE:
COUNTY: Polk | STORET #: | LONGITUDE:
DATE: 8/11/26 | TIME: 10:30 | SAMPLING AGENCY: USGS
SITE NAME: Lake Hatchineha | WBID:
FIELD ID/NAME: Hatchineha | 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)
97				2			

LANDSCAPE DEVELOPMENT INTENSITY (100 m buffer) LDI: 1.15

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 19	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 19	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 19	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	33.85	7.28	6.28	88.30	178.7	0.08
Mid-Depth:	0.78	31.32	7.15	5.69	76.7	182.3	0.08
Bottom :	1.4	30.95	6.98	4.69	630	183.3	0.08

Meter ID:

Clarity: ☐ Clear ☐ Opaque ☑ Turbid ☐ Slightly Turbid

Color: ☐ Clear ☑ Tannic ☐ Green

SECCHI (M) 0.82

VOB ☐

Total Station Depth (M) 1.53

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 Towfiqul Islam Khan | SIGNATURE: | DATE: 8/11/26

DEP FORM FD 9000-27 LAKE VEGETATION INDEX FIELD SHEET

Waterbody: Hotchkiss	County: Polk	Date: 8/11/26
Analyst: David Eslers	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	1	4	7	10	Collected? (√)	SPECIES	1	4	7	10	Collected? (√)
Acer rubrum			1			**Hydrilla verticillata**	1			1	
Alternanthera philoxeroides	1	1	1	1		Hydrocotyle sp.	1	1			
Andropogon sp.						Hydrocotyle umbellata					
Andropogon glomeratus	1			1		Hymenachne amplexicaulis					
Azolla filiculoides (A. caroliniana)						Ilex cassine					
Baccharis sp.						Imperata cylindrica					
Baccharis glomeruliflora		1	1			Ipomoea sagittata					
Bacopa monnieri						Itea virginica					
Bidens alba						Juncus effusus					
Blechnum serrulatum						*Juncus marginatus					
Boehmeria cylindrica						*Juncus megacephalus					
Casuarina equisitifolia						Juncus repens					
Centella asiatica						*Juncus scirpoides					
Cephalanthus occidentalis	1	1	1	1		Lachnanthes caroliniana					
Ceratophyllum demersum						Leersia hexandra	1	1			
Chara sp.						**Landoltia punctata** (Spirodela punctata)					
Cladium jamaicense						Lemna sp.					
Colocasia esculenta		1		1		Lemna minor					
*Commelina						**Limnophila sessiliflora**					
Crinum americanum						Liquidamber styraciflua					
Cyperus sp.				1	V	*Ludwigia sp.				1	V
Cyperus articulatus						*Ludwigia arcuata					
***Cyperus alternifolius** (C. involucratus)						*Ludwigia erecta					
*Cyperus belephaleptos	1					*Ludwigia leptocarpa	1	1	1	1	
Cyperus haspan						*Ludwigia linearis					
*Cyperus lecontei				1		*Ludwigia octovalvis	1	1	1	1	
*Cyperus odoratus	1	1		1		***Ludwigia peruviana**	1	1	1		
*Cyperus polystachyos						*Ludwigia repens					
*Cyperus surinamensis						Luziola fluitans (Hydrochloa carolinensis)					
Diodia virginiana						Magnolia virginiana					
Dioscorea bulbifera						**Melaleuca quinquenervia**					
*Echinochloa crus-galli						Micranthemum glomeratum					
Echinochloa walteri	1	1		1		Micranthemum umbrosum					
Eclipta prostrata (E. alba)	1					Mikania scandens		1			
Eichhornia crassipes	1			1		**Mimosa pigra**					
*Eleocharis						Musa					
*Eleocharis baldwinii	1			1		Myrica cerifera	1	1	1		
Eleocharis cellulosa						Myriophyllum aquaticum					
Eleocharis equisetoides						**Myriophyllum spicatum**					
Eleocharis interstincta				1		*Najas guadalupensis	1				
Eleocharis vivipara						Nelumbo lutea	1	1	1	1	
Erechitetes hieraciifolius	1	1				Nitella sp.					
Eupatorium capillifolium		1	1	1		Bidens ~~mitis~~ laevis	1	1	1		
*Fuirena						Ludwigia peploides	1	1	1	1	
Fuirena breviseta						Nymphoides cristata	1	1		1	
Fuirena pumila											
Fuirena scirpoidea						~~Hibiscus~~ white/yellow	1				V
Gordonia lasianthus						Kosteletzkya pentacarpos	1	1		1	V
Habenaria repens											
Hibiscus grandiflorus	1	1	1	1							

FORM FD 9000-27: LAKE VEGETATION INDEX FIELD SHEET

Site: Hatchineha | Date: 8/14/26

SPECIES	1	4	7	10	Collected? (√)
Nuphar sp.	1	D	1	1	
Nymphaea odorata	1				
Nymphoides aquatica					
Nyssa sylvatica biflora					
Orontium aquaticum					
Osmunda cinnamomea					
Osmunda regalis					
Panicum hemitomon	1		1	1	
Panicum repens				1	
Parthenocissus quinquefolia					
Paspalidium geminatum	C	1	C	C	
*Paspalum repens					
Paspalum urvillei					
Peltandra sp.					
Pennisetum purpureum					
Persea sp.					
Persea palustris					
Persea glabra					
Phragmites australis					
Phyla nodiflora					
Pinus elliottii					
Pistia stratioides		1	1	1	
Pluchea sp.					
Pluchea baccharis	1		1	1	
Pluchae odorata				X	
*Polygonum					
*Polygonum glabrum (densiflorum)	1		1	1	
*Polygonum hydropiperoides					
*Polygonum punctatum			1		
Pontederia cordata	1	1	1	1	
*Potamogeton illinoensis			1		
Ptilimnium capillaceum					
Quercus					
Quercus laurifolia					
Quercus nigra					
*Rhexia					
Rhynchospora microcephala					
Rhynchospora nitens	1			1	
Sabal palmetto					
Sacciolepis striata	1	1	1		
Sagittaria lancifolia	1	1	1	1	
Sagittaria latifolia	1	1	1		
Salix caroliniana	1	1	1	1	
Salvinia minima	1		1	1	
Sambucus canadensis					
Sambucus nigra					
Sapium sebiferum					
Sarcostemma clausum					
Schinus terebinthifolius					
*Schoenoplectus californicus	C	1	C	C	✓
*Schoenoplectus tabernaemontani (Scirpus validus)		1		1	✓
*Sesbania herbacea	1	1	1		
*Sesbania herbacea					
Solidago sp.					

SPECIES	1	4	7	10	Collected? (√)
Sparganium americanum					
Spartina bakeri					
Taxodium sp.	1	1	1	1	
Taxodium ascendens					
Taxodium distichum					
Thalia geniculata	1				
Thelypteris interrupta					
Thelypteris palustris					
Triadenum virginicum					
Typha sp.	1	1	1	1	
Urena lobata					
Urochloa mutica (Brachiaria mutica)					
*Utricularia					
*Utricularia floridana					
*Utricularia foliosa					
*Utricularia gibba (U. biflora)					
*Utricularia purpurea					
*Utricularia radiata					
Vallisneria americana	1	1	1	1	
Vigna luteola	1	1			
Vitis					
Vitis rotundifolia					
*Websteria confervoides					
Wedelia trilobata (Sphagneticola trilobata)					
Woodwardia virginica					
Xyris sp.					
Zizania aquatica					
Zizaniopsis milacea					

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

STORET STATION NUMBER:	DATE (M/D/Y): 8/11/26	LAKE NAME: Lake Hatchineha	FIELD ID / NAME: Hatchineha
ECO-REGION:	COUNTY: Polk	SAMPLING LOCATION/DESCRIPTION: Lake Hatchineha Polk/Osceola	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 8	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 17	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 19	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 10	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 19	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 19	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 19	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	111	COMMENTS:

ANALYSIS DATE: 8/11/26	ANALYST: David Eilers	SIGNATURE: