



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

STRATEGIC MONITORING PLAN Field Sheet

July 2022

Meter
Passed End
of Day CCV
Yes / No

WIN Station Name:	LOCHLOOSA LAKE CENTER				Sample Date:	10/19/2023	
WIN / Field ID:	G1NE0956	ORG ID:	21FLA	ENR:	-	Latitude:	29.52041
County:	ALACHUA	WBID:	2738A	LAKE		Longitude:	-82.12614
Receiving Body of Water:	Orange Lake				RQ-	2023-09-25-16	

Sampling Team Members	WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
Jeremy Parrish	x		x		
Katrin Villinger		x		x	x

Sampling Equipment			
x	Sample Container		Carboy
	Dipper		Van Dorn
	Syringe		Pole
Syringe Lot#		Filter Lot# R1eb01329	
Secchi Equipment ID:		D#3	
Collection Method			
	Wading		Canoe/Kayak
	From Shore		Electric Motor
		x	Gasoline Motor
Depth Measured With		Meter	

Water Level:	Normal
Flow:	NA
Matrix:	Fresh
Tide Stage:	
High Tide:	
Low Tide:	
Photos:	No
Meter ID:	Stitch
Depth Gauge ID:	depth_gauge

Time Zone	Time	Total Depth (m)	Sample Depth (m)	DO (mg/L)	DO (%SAT)	Temp. (°C)	pH	Secchi Disk (m)	Sp COND (µmhos/cm)	Salinity (PPT)
EST	1135	2.9	0.3	10.09	114.4	21.7	8.69	0.4	105	0.05
	1138		2	9.14	102.6	21	8.24		105	0.05
	1139		2.4	8.77	96.5	21	7.52		105	0.05

Biological Samples Collected: None

SBIO Visit ID: HA ID: RPS ID: Macrophyte ID: LIMS Sample ID
In The Macrophyte Module:

Parameter Suite	Parameter Methods (LIMS Test Codes)			Preservation				
	Type	Lot#	Expiration Date	pH Check				
Microbiology								
Chlorophyll	CHLSUITE-W			ICE				
Physical/Aggregate	ALKALINITY, TURBIDITY, W-F, W-TSS			ICE				
Nutrients	W-CL-IC, W-COLOR, W-SO4-IC, W-TDS			ICE				
Filtered Nutrients	W-PO4-F	Field Filtered 0.45 µm Filter		ICE	Syringe Lot#; Filter Lot#:R1eb01329			
Acid Preserved Nutrients	W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP			ICE	H2SO4*	SA3013020	01/25/2024	H2SO4 pH<2
Metals	W-ICPMS	W-ICP	W-HARD	ICE	HNO3**	NA3123030	05/01/2024	HNO3 pH<2
Organics (LC)	W-E8321-DI	W-E8321-MS						
Macroinvertebrates								
Organics (GC)	W-PSNP-TQ	W-TR-SQ-R		Ice	*2.0 ml of H2SO4 Used Unless Noted Otherwise **2.0 ml of HNO3 Used Unless Noted Otherwise			
Molecular								
Periphyton								
Phytoplankton								
BOD								
DOC								
Other(s)								
Field Comments:								
Comments on COC:								
Relinquish Date:	10/19/2023	Signature:						

LIMS EVENT ID: WIN Import ID:

Enter Field Parameters, Verify Station ID In LIMS DMT: QC Station ID, Field Parameters In LIMS DMT:

(Initials/Date)

(Initials/Date)

Save Field Sheets on Network: Migrate Data to WIN:

(Initials/Date)

(Initials/Date)

DEP FORM FD 9000-27 LAKE VEGETATION INDEX FIELD SHEET

Waterbody: <u>Lake Lochlossa</u>				County: <u>Flachler</u>				Date: <u>10/19/23</u>			
Analyst: <u>Jerry Parr</u>				Signature: <u>Jerry Parr</u>				STORET: <u>61NE0936</u>			
Except where noted as "sp." species level identification required. *General 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 <u>3, 6, 9, 12</u>			
SPECIES	3	6	9	12	Collected? (✓)	SPECIES	3	6	9	12	Collected? (✓)
Acer rubrum						Habenaria repens					
Alternanthera philoxeroides						Hydrilla verticillata					✓
Andropogon sp.						Hydrocotyle sp.					
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 equisetifolia						*Juncus megacephalus					
Centella asiatica						Juncus repens					
Cephalanthus occidentalis						*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						Limnium spongia					
Crinum americanum						Limnophila sessiliflora					
*Cyperus alternifolius (C. involucratus)						Liquidambar styraciflua					
Cyperus articulatus						*Ludwigia arcuata					
Cyperus haspan						*Ludwigia leptocarpa					
*Cyperus lecontei						*Ludwigia linearis					
*Cyperus polystachyos						*Ludwigia octovalvis					
*Cyperus odoratus						*Ludwigia peruviana					
*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					
*Eleocharis baldwinii						Mimosa pigra					
*Eleocharis						Myrica cerifera					
Eleocharis cellulosa						Amaranthus stralis					
Eleocharis equisetoides											
Eleocharis interstincta											
*Eriocaulon compressum											
*Eriocaulon decangulare											
Eupatorium capillifolium											
*Fuirena											
Fuirena scirpoides											
Gordonia lasianthus											

FORM FD 9000-27: LAKE VEGETATION INDEX FIELD SHEET

Site:						Date:					
SPECIES	3	6	9	12	Collected? (✓)	SPECIES	3	6	9	12	Collected? (✓)
Myriophyllum aquaticum						Salix caroliniana	✓	✓	✓	✓	
*Myriophyllum heterophyllum						Salvinia minima	✓	✓	✓	✓	
*Myriophyllum laxum						Sambucus canadensis					
*Myriophyllum pinnatum						Sapindus sebiferum					
Myriophyllum spicatum						Saururus cernuus				✓	
*Najas filifolia						Schinus terebinthifolius					
*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					
Osmunda cinnamomea						Spirodela polyrhiza					
Osmunda regalis						Taxodium sp.	✓	✓	✓	✓	✓
Panicum hemitomon	✓	✓	✓	✓		Thalia geniculata					
Panicum repens	✓	✓	✓	✓	✓	Thelypteris palustris					
Paspalum geminatum	✓	✓	✓	✓	✓	Triadenum virginicum					
*Paspalum repens						Typha sp.	✓	✓	✓	✓	✓
Paspalum urvillei						Urochloa mutica (Brachiaria mutica)					
Peltandra sp.						*Utricularia gibba (U. biflora)					
Persea sp.						*Utricularia floridana		✓			
Pennisetum purpureum						*Utricularia foliosa					
Phragmites australis						*Utricularia inflata					
Pinus elliotii						*Utricularia purpurea					
Pistia stratioides						*Utricularia cornuta					
Pluchea sp.						*Utricularia radiata					
*Polygonum glabrum (densiflorum)	✓		✓	✓		Vallisneria americana	✓			✓	
*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						symphostriatum caroliniana	✓				
*Rhexia											
*Rhynchospora corniculata											
*Rhynchospora inundata											
Rhynchospora tracyi											
Ricciocarpus natans											
Sabal palmetto	✓	✓	✓	✓	✓						
Sacciolepis striata			✓	✓							
*Sagittaria filiformis											
*Sagittaria graminea											
*Sagittaria isoetiformis											
Sagittaria lancifolia		✓									
Sagittaria latifolia	✓	✓	✓	✓	✓						
Sesbania herb.	✓	✓	✓	✓	✓						

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

STORET STATION NUMBER:	DATE (M/D/Y): 10/19/23	LAKE NAME: Lookloosa Lake Center		FIELD ID / NAME:
ECO-REGION:	COUNTY: Alameda	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	Secchi > 3 m Or VOB	Secchi (m)		
	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1
Vegetation Quality	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 (duckweed, 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	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	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 Alterations	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	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	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	79	COMMENTS:
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ANALYSIS DATE: 10/19/23	ANALYST: Jeremy Parn	SIGNATURE: Jeremy Parn
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DEP FORM FD 9000-31: LAKE OBSERVATION FIELD SHEET

SAMPLE ID: _____	MACROPHYTE ID: _____	LATITUDE: _____
COUNTY: <u>Alachua</u>	STORET #: <u>61NE0956</u>	LONGITUDE: _____
DATE: <u>10/19/23</u>	TIME: <u>1135</u>	SAMPLING AGENCY: _____
SITE NAME: <u>Cochran Lake Center</u>	WBID: <u>2789 A</u>	LAKE SIZE: _____ RQ: _____
FIELD ID/NAME: _____		

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) ☐					LANDSCAPE DEVELOPMENT INTENSITY (100 m buffer) LDI:				
Local Watershed Erosion (select one) : ☐ None ☒ Slight ☐ Moderate ☐ Heavy					Artificially Impounded ☐ Yes ☐ No				
Local Watershed NPS Pollution : ☐ No evidence ☒ Slight ☐ Moderate ☐ Heavy					Land Use Source & Year:				
STORMWATER INPUTS <u>11</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 15 14 13 12 <u>11</u>		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	
LAKESIDE ALTERATIONS <u>13</u>		Very few man-made structures, roads, or other disturbance adjacent to lake (<10% lakeside affected) 20 19 18 17 16		Moderate disturbance visible - structures, roads or other (10%-49% lakeside affected) 15 14 <u>13</u> 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	
BUFFER ZONE <u>14</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 <u>14</u> 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	

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 _____															
Meter Readings: Depth (M) Temp. (°C) pH (SU) D.O. (MG/L) D.O. Sat. (%) Cond. (UMHO/CM) Salinity (PPT) Top: <u>0.3</u> <u>21.7</u> <u>8.69</u> <u>10.09</u> <u>114.4</u> <u>105</u> <u>0.05</u> Mid-Depth: <u>2</u> <u>21</u> <u>8.24</u> <u>9.14</u> <u>102.6</u> <u>105</u> <u>0.05</u> Bottom: <u>2.4</u> <u>21</u> <u>7.52</u> <u>8.77</u> <u>96.5</u> <u>105</u> <u>0.05</u>								Water Surface Oils: ☒ None ☐ Sheen/Slick ☐ Glob ☐ Other _____															
Meter ID: _____								Clarity: ☐ Clear ☒ Turbid ☐ Opaque ☐ 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): _____								SECCHI (M) <u>0.4</u> Total Station Depth (M) <u>2.9</u> VOB ☐															
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: <u>Algae</u>																							

Weather Conditions :

SAMPLING TEAM: Jerry Burr

SIGNATURE: Jerry Burr

DATE: 10/19/23