

**FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION**

STRATEGIC MONITORING PLAN Field Sheet

July 2022

Meter
Passed End
of Day CCV
Yes / No

WIN Station Name:	Lake Carrie at Center				Sample Date:	8/9/2022	
WIN / Field ID:	G4SD0212	ORG ID:	21FLFTM	ENR:	-		
County:	Highlands	WBID:	1938D	LAKE			
Receiving Body of Water:	Lake Istokpoga				RQ-	2022-08-08-68	

Sampling Team Members	WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
Nicole Reistad		x		x	x
Monica Jaeger	x		x		

Sampling Equipment			
x	Sample Container	Carboy	
	Dipper	Van Dorn	
x	Syringe	Pole	
Syringe Lot# 1363442		Filter Lot# 17441866	
Secchi Equipment ID:		3312A	
Collection Method			
	Wading	Canoe/Kayak	
	From Shore	Electric Motor	
		x Gasoline Motor	
Depth Measured With Secchi			

Water Level:	Normal
Flow:	NA
Matrix:	Fresh
Tide Stage:	
High Tide:	
Low Tide:	
Photos:	Yes
Meter ID:	President Camacho

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 (PPTth)
EST	1015	3.6	0.3	5.74	46.4	30.4	6.71	1	199.9	0.05
	1016		2	5.57	74	30.3	6.69		119.4	0.05
	1017		3.1	5.31	70.7	30.2	6.67		119	0.05

Biological Samples Collected:

LVI

SBIO Visit ID:

HA ID:

RPS ID:

Macrophyte ID:

LIMS Sample ID Entered
Into The Macrophyte Module:

Parameter Suite	Parameter Methods (LIMS Test Codes)			Preservation						
				Type	Lot#	Expiration Date	pH Check			
Microbiology	E. coli	Contract Lab	Benchmark	ICE						
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						
Acid Preserved Nutrients	W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP			ICE	H2SO4*	131766	11/19/22			
Metals	W-ICPMS	W-ICP	W-HARD	ICE	HNO3**	NA1105100	6/7/23			
Organics (LC)	W-E8321-DI	W-E8321-MS		Ice						
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										
Other(s)										
Field Comments:										
Comments on COC:	Microbiology sample(s) submitted to contract laboratory.									
Relinquish Date:	08/09/2022	Signature:								

LIMS EVENT ID: _____ WIN Import ID: _____

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

(Initials/Date)

QC Station ID, Field Parameters In LIMS DMT: _____

(Initials/Date)

Save Field Sheets on Network: _____

(Initials/Date)

Migrate Data to WIN: _____

(Initials/Date)

DEP FORM FD 9000-27 LAKE VEGETATION INDEX FIELD SHEET

Waterbody <u>Lake Carrie</u>				County <u>HIGHLANDS</u>				Date <u>8/11/22</u>			
Analyst <u>NICOLE REISTAD, MONICA JAEGER</u>				Signature <u>[Signature]</u>				STORET <u>GASD0212</u>			
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 <u>3, 6, 9, 12</u>			
SPECIES	3	6	9	12	Collected? (✓)	SPECIES	3	6	9	12	Collected? (✓)
Acer rubrum						Habenaria repens					
Alternanthera philoxeroides	X	X	X	X		Hydrilla verticillata					
Andropogon sp.						Hydrocotyle sp.	X	X	X	X	
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	X	X	X			Ipomoea sagittata					
Boehmeria cylindrica						Itea virginica					
Brasenia schreberi						Juncus effusus					
Cabomba caroliniana						*Juncus marginatus					
Casuarina equisetifolia						*Juncus megacephalus					
Centella asiatica	X					Juncus repens					
Cephalanthus occidentalis	X	X	X			*Juncus scirpoides					
Ceratophyllum demersum						Lachnanthes caroliniana					
Chara sp.						Leersia hexandra					
Cladium jamaicense						Landoltia punctata (Spirodela punctata)					
Cliftonia monophylla						Lemna sp.			X		
Colocasia esculenta	X	X	X	X		Leucothoe racemosa (Eubotrys racemosa)					
*Commelina						Limnobium 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	X	X	X			*Ludwigia octovalvis	X	X	X	X	
*Cyperus odoratus	X	X	X			*Ludwigia peruviana	X	X	X	X	
*Cyperus surinamensis						*Ludwigia repens					
Cyrilla racemiflora						*Ludwigia					
Decodon verticillatus						Luziola fluitans (Hydrochloa carolinensis)					
Diodia virginiana						Lyonia lucida					
*Echinochloa crus-galli						Magnolia virginiana			X	X	
*Echinochloa muricatum						Mayaca fluviatilis					
Echinochloa walteri						Melaleuca quinquenervia					
Eclipta prostrata (E. alba)						Micranthemum glomeratum					
Egeria densa						Micranthemum umbrosum					
Eichhornia crassipes						Mikania scandens	X		X	X	
*Eleocharis baldwinii	X					Mimosa pigra					
*Eleocharis						Myrica cerifera					
Eleocharis cellulosa											
Eleocharis equisetoides											
Eleocharis interstincta											
*Eriocaulon compressum											
*Eriocaulon decangulare											
Eupatorium capillifolium	X		X								
*Fuirena <u>pumila</u>	X										
Fuirena scirpoidea											
Gordonia lasianthus	X		X								

FORM FD 9000-27: LAKE VEGETATION INDEX FIELD SHEET

Site: LAKE CARRIE						Date: 08/09/22					
SPECIES	3	4	9	12	Collected? (✓)	SPECIES	3	4	9	12	Collected? (✓)
Myriophyllum aquaticum						Salix caroliniana			X		
*Myriophyllum heterophyllum						Salvinia minima			X		
*Myriophyllum laxum						Sambucus canadensis					
*Myriophyllum pinnatum						Sapium sebiferum					
Myriophyllum spicatum						Saururus cernuus					
*Najas filifolia						Schinus terebinthifolius			X		
*Najas guadalupensis						*Schoenoplectus californicus					
*Najas minor						*Schoenoplectus pungens					
Nelumbo lutea						*Schoenoplectus tabernaemontani (Scirpus validus)					
Nitella spp.						Scirpus cubensis (Oxycaryon cubense)				X	
Nuphar sp.	X	X	X	X		Scirpus cyperinus					
Nymphaea odorata						*Sesbania					
Nymphoides aquatica						Solidago sp.					
Nyssa sylvatica var. biflora						Sparganium americanum					
Orontium aquaticum						Spartina bakeri			X		
Osmunda cinnamomea						Spirodela polyrhiza					
Osmunda regalis						Taxodium sp.	X		X		
Panicum hemitomon	X	X		X		Thalia geniculata					
Panicum repens	X	X	X	X		Thelypteris palustris					
Paspalum geminatum						Triadenum virginicum					
*Paspalum repens						Typha sp.	X	X	X	X	
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	X			X		*Utricularia purpurea					
Pistia stratiotes						*Utricularia cornuta					
Pluchea sp.						*Utricularia radiata					
*Polygonum glabrum (densiflorum)						Vallisneria americana					
*Polygonum hydropiperoides						*Websteria confervoides					
*Polygonum punctatum						Wedelia trilobata (Sphagneticola trilobata)	X	X	X	X	
*Polygonum						Wolffia spp.					
Pontederia cordata						Woodwardia virginica					
*Potamogeton diversifolius						Xyris sp.					
*Potamogeton illinoensis						Zizania aquatica					
*Potamogeton pusillus						Zizaniopsis milacea					
*Potamogeton pectinatus (Stuckenia pectinatus)											
Proserpinaca pectinata						Vitis					
*Rhexia cubensis	X					Sphagneticola trilobata	X		X		
*Rhynchospora corniculata						Quercus virginiana	X		X		
*Rhynchospora inundata						Ruppia maritima			X		
Rhynchospora tracyi						Bidens Alba					
Ricciocarpus natans						Submerged (Egeria densa SM)			X		
Sabal palmetto											
Sagittaria striata						Fern Thelypteris kunthii				X	
*Sagittaria filiformis						Thelypteris marginata NR					
*Sagittaria graminea											
*Sagittaria isoetiformis											
Sagittaria lancifolia											
Sagittaria latifolia				X	X						

UIMS ID: 2347765 VISIT ID: 85192
 DEP FORM FD 9000-31: LAKE OBSERVATION FIELD SHEET

LE ID: _____ MACROPHYTE ID: 12254 LATITUDE: 27.3315
 COUNTY: Highlands STORET #: G4SD0212 LONGITUDE: -81.4275
 DATE: 8/9/2022 TIME: 10:15 SAMPLING AGENCY: FIDEL-SOROU
 SITE NAME: Lake Carme WBID: 1938D
 FIELD ID/NAME: G4SD0212 LAKE SIZE: _____ RO: 2022-08-08-68

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)
10				90	100		

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

STORMWATER INPUTS: 2

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: 1

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: 2

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 ☐ No pH < 2 ☐ No
 Color Sample Taken? ☒ Yes ☐ No Lot #: 131706 Exp. Date: 11/19/22
 Alkalinity Sample Taken? ☒ Yes ☐ No
 Water Level: ☐ Low ☒ Normal ☐ High

Water Odors: ☒ Normal ☐ Sewage ☐ Petroleum ☐ Other _____

Water Surface Oils: ☒ None ☐ Sheen/Slack ☐ Glob ☐ Other _____

Meter Readings:

	Depth (M)	Temp. (°C)	pH (SU)	D.O. (MG/L)	D.O. Sat. (%)	Cond. (UMHO/CM)	Salinity (PPT)
Top:	0.3	30.4	6.71	5.74	76.4	119.9	0.05
Mid-Depth:	2.0	30.3	6.69	5.57	74.0	119.4	0.05
Bottom:	3.1	30.2	6.67	5.31	70.7	119.0	0.05

Meter ID: President Camacho

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

SECCHI (M): 1.0 Total Station Depth (M): 3.6
 VOB: _____

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 ☐ Anaerobic ☐ Other (Specify): _____

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: Cloudy

SAMPLING TEAM: NICOLE REISTAD, MONICA JAEGER
SIGNATURE: _____ **DATE:** 08/09/22