

**FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION**

STRATEGIC MONITORING PLAN Field Sheet

July 2022

"J" pH
08/03/22
NR

Meter
Passed End
of Day CCV
Yes / **No**

WIN Station Name:	Buck Lake @ Middle				Sample Date:	8/3/2022	
WIN / Field ID:	G4SD0158	ORG ID:	21FLFTM	ENR:	-		
County:	Highlands	WBID:	1932I	LAKE	3F		
Receiving Body of Water:	-				RQ-	2022-08-01-48	

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

Sampling Equipment			
x	Sample Container	Carboy	
	Dipper	Van Dorn	
x	Syringe	Pole	
Syringe Lot# 1363442		Filter Lot# 17347262	
Secchi Equipment ID:		3312A	
Collection Method			
	Wading	x	Canoe/Kayak
	From Shore		Electric Motor
			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	940	18.1	0.3	7.7	103.8	31.1	7.13	6.2	318.5	0.15
	942		2	7.69	103.7	31	7.22		318.5	0.15
	645		10.3	9.84	123.3	26.8	7.36		315.9	0.15

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												
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	H2SO4 pH<2				
Metals	W-ICPMS	W-ICP	W-HARD	ICE	HNO3**	NA1105100	06/07/23	HNO3 pH<2				
Organics (LC)		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												
Other(s)												
Field Comments:												
Comments on COC:												
Relinquish Date:	08/03/2022	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)

VISIT ID ~~12~~ 85125

Macrophyte ID 12230

DEP FORM FD 9000-27 LAKE VEGETATION INDEX FIELD SHEET

Waterbody: <u>Buck Lake</u>		County: <u>Highlands</u>		Date: <u>08/03/22</u>							
Analyst: <u>NOVE REISAD, MONICA MEGER</u>		Signature: <u>[Signature]</u>		STORET: <u>64SD0158</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.											
SPECIES	2	5	8	11	Collected? (✓)	SPECIES	2	5	8	11	Collected? (✓)
<i>Acer rubrum</i>						<i>Habenaria repens</i>					
<i>Alternanthera philoxeroides</i>						<i>Hydrilla verticillata</i>					
<i>Andropogon</i> sp.						<i>Hydrocotyle</i> sp.			✓	✓	✓
<i>Azolla filiculoides</i> (A. caroliniana)						<i>Hygrophila polysperma</i>					
<i>Baccharis</i> sp.						* <i>Hypericum fasciculatum</i>					
<i>Bacopa caroliniana</i>						* <i>Hypericum hypericoides</i>					
<i>Bacopa monnieri</i>						* <i>Hypericum myrtifolium</i>					
<i>Bidens laevis</i>						<i>Ilex cassine</i>					
<i>Bidens mitis</i>						<i>Ipomoea aquatica</i>					
<i>Blechnum serrulatum</i>						<i>Ipomoea sagittata</i>					
<i>Boehmeria cylindrica</i>						<i>Itea virginica</i>					
<i>Brasenia schreberi</i>						<i>Juncus effusus</i>					
<i>Cabomba caroliniana</i>						* <i>Juncus marginatus</i>					
<i>Casuarina equisetifolia</i>						* <i>Juncus megacephalus</i>					
<i>Centella asiatica</i>						<i>Juncus repens</i>					
<i>Cephalanthus occidentalis</i>						* <i>Juncus scirpoides</i>					
<i>Ceratophyllum demersum</i>						<i>Lachnanthes caroliniana</i>					
<i>Chara</i> sp.						<i>Leersia hexandra</i>					
<i>Cladium jamaicense</i>						<i>Landoltia punctata</i> (Spirodela punctata)					
<i>Cliftonia monophylla</i>						<i>Lemna</i> sp.					
<i>Colocasia esculenta</i>						<i>Leucothoe racemosa</i> (Eubotrys racemosa)					
* <i>Commelina virginica</i>				✓		<i>Limnium spongia</i>					
<i>Crinum americanum</i>						<i>Limnophila sessiliflora</i>					
* <i>Cyperus alternifolius</i> (C. involucratus)						<i>Liquidambar styraciflua</i>					
<i>Cyperus articulatus</i>						* <i>Ludwigia arcuata</i>					
<i>Cyperus haspan</i>						* <i>Ludwigia leptocarpa</i>					
* <i>Cyperus lecontei</i>						* <i>Ludwigia linearis</i>					
* <i>Cyperus polystachyos</i>						* <i>Ludwigia octovalvis</i>				✓	✓
* <i>Cyperus odoratus</i>				✓		* <i>Ludwigia peruviana</i>	✓	✓	✓	✓	✓
* <i>Cyperus surinamensis</i>						* <i>Ludwigia repens</i>					
<i>Cyrilla racemiflora</i>						* <i>Ludwigia</i>					
<i>Decodon verticillatus</i>						<i>Luziola fluitans</i> (Hydrochloa carolinensis)					
<i>Diodia virginiana</i>						<i>Lyonia lucida</i>					
* <i>Echinochloa crus-galli</i>		9				<i>Magnolia virginiana</i>					
* <i>Echinochloa muricatum</i>						<i>Mayaca fluviatilis</i>			✓	✓	✓
<i>Echinochloa walteri</i>						<i>Melaleuca quinquenervia</i>			✓	✓	✓
<i>Eclipta prostrata</i> (E. alba)						<i>Micranthemum glomeratum</i>					
<i>Egeria densa</i>						<i>Micranthemum umbrosum</i>					
<i>Eichhornia crassipes</i>						<i>Mikania scandens</i>					
* <i>Eleocharis baldwinii</i>				✓		<i>Mimosa pigra</i>					
* <i>Eleocharis</i>						<i>Myrica cerifera</i>					
<i>Eleocharis cellulosa</i>											
<i>Eleocharis equisetoides</i>											
<i>Eleocharis interstincta</i>											
* <i>Eriocaulon compressum</i>											
* <i>Eriocaulon decangulare</i>											
<i>Eupatorium capillifolium</i>	✓			✓							
* <i>Fuirena</i>											
<i>Fuirena scirpoidea</i>	✓	✓	✓	✓		<i>Euphorbia heterophylla</i>	✓				NR
<i>Gordonia lasianthus</i>											

FORM FD 9000-27: LAKE VEGETATION INDEX FIELD SHEET

Site: BUCK LAKE

Date: 08/03/22

SPECIES	2	5	8	11	Collected? (V)	SPECIES	2	5	8	11	Collected? (V)
Myriophyllum aquaticum						Salix caroliniana					
*Myriophyllum heterophyllum						Salvinia minima					✓
*Myriophyllum laxum						Sambucus canadensis					
*Myriophyllum pinnatum						Sapium 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					
Paspalidium 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 (Sphagnetocola 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						submersed ^{mayaca} hydrilla					
*Rhexia						velvet leaf					
*Rhynchospora corniculata						Cicuta maculata					
*Rhynchospora inundata						Bidens alba					
Rhynchospora tracyi						water hyacinth ^{upland}					
Ricciocarpus natans						Utricularia lobata					
Sabal palmetto						Vitis					
Sagittaria striata						Panicum virgatum					
*Sagittaria filiformis											
*Sagittaria graminea											
*Sagittaria isoetiformis											
Sagittaria lancifolia					✓						
Sagittaria latifolia											

LIMS ID: 2346338

DEP FORM FD 9000-31: LAKE OBSERVATION FIELD SHEET

SAMPLE ID: 85125 MACROPHYTE ID: 12230 LATITUDE: 27.23542
 COUNTY: Highlands STORET #: _____ LONGITUDE: -81.33258
 DATE: 08/03/2022 TIME: 0940 SAMPLING AGENCY: DEP-SROC
 NAME: GASDC158 WBID: 1932I
 FIELD ID/NAME: Buck Lake at Center LAKE SIZE: _____ RQ: 2022-08-01-48

WATERSHED / LAKESIDE FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category - from GIS):								LANDSCAPE DEVELOPMENT INTENSITY (100 m buffer)			
Forest/Natural	Silviculture	Field/Pasture	Agricultural	Residential	Commercial	Industrial	Other (Specify)	LDI: _____			
☐	☐	<u>5</u>	<u>80%</u>	<u>5</u>	<u>10</u>	NR	☐	Land Use Source & Year			
Local Watershed Erosion (select one): ☒ None ☐ Slight ☐ Moderate ☐ Heavy								Artificially Impounded			
Local Watershed NPS Pollution: ☒ No evidence ☐ Slight ☐ Moderate ☐ Heavy								☐ Yes ☒ No			
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			
<u>NR</u>		20 19 18 17 16		15 14 13 12 11		10 9 8 7 6		<u>2</u> <u>4</u> <u>2</u> <u>1</u>			
LAKESIDE ALTERATIONS		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)			
<u>2</u>		20 19 18 17 16		15 14 13 12 11		10 9 8 7 6		5 4 3 <u>2</u> <u>1</u>			
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			
<u>3</u>		20 19 18 17 16		15 14 13 12 11		10 9 8 7 6		5 4 <u>3</u> <u>2</u> <u>1</u>			

WATER / SUBSTRATE / BIOLOGICAL: SAMPLES AND OBSERVATIONS

Water: Nutrient Sample Taken? ☒ Yes ☐ No Preserved? ☒ Yes ☐ No pH < 2 ☐ No Color Sample Taken? ☒ Yes ☐ No Lot # <u>SA131766</u> Exp. Date: <u>11/19/22</u> Alkalinity Sample Taken? ☒ Yes ☐ No Water Level ☐ Low ☒ Normal ☐ High								Water Odors: ☒ Normal ☐ Sewage ☐ Petroleum ☐ Other _____			
Meter Readings: Top: <u>0.3</u> <u>31.1</u> <u>7.13</u> <u>7.70</u> <u>103.8</u> <u>318.5</u> <u>0.15</u> Mid-Depth: <u>2.0</u> <u>31.0</u> <u>7.22</u> <u>7.69</u> <u>103.7</u> <u>318.5</u> <u>0.15</u> Bottom: <u>10.3</u> <u>26.8</u> <u>7.36</u> <u>9.84</u> <u>123.3</u> <u>315.9</u> <u>0.15</u>								Water Surface Oils: ☒ None ☐ Sheen/Slick ☐ Glob ☐ Other _____			
Meter ID: <u>PRESIDENT CAMACHO</u>								Clarity: ☒ Clear ☐ Opaque ☐ Turbid ☐ Slightly Turbid			
Sediment Type: (may check more than one) ☐ Sandy ☒ Organic fibrous (peaty, CPOM) ☐ Vegetated ☐ Sand/Silt ☒ Organic smooth (muck) ☐ Other (Specify): _____								Color: ☒ Clear ☐ Tannic ☐ Green			
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								SECCHI (M) <u>6.2</u> Total Station Depth (M) <u>18.1</u> VOB ☐			
Abundance: Periphyton ☒ Absent ☐ Rare ☐ Common ☐ Abundant Nuisance Plants ☐ ☐ ☒ ☐ Submersed Plants ☐ ☐ ☐ ☒ Exotic Apple Snails ☐ ☐ ☒ ☐								Sediment Odors: ☒ Normal ☐ Other (Specify): _____ ☐ Anaerobic			
Additional Notes:											

Weather Conditions:

SAMPLING TEAM:

MONICA JAEGER, NICOLE REISTAD

SIGNATURE:

DATE:

08/03/2022