

**FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION**

STRATEGIC MONITORING PLAN Field Sheet

July 2022

Meter
Passed End
of Day CCV☒ Yes / ☐ No

WIN Station Name:	Sawgrass Lake E of Center				Sample Date:	8/30/2022		
WIN / Field ID:	G3CE0064	ORG ID:	21FLCEN	ENR:	-		Latitude:	28.07484
County:	Brevard	WBID:	2893X2	LAKE			Longitude:	-80.7748
Receiving Body of Water:	-					RQ-	2022-05-30-16	

Sampling Team Members	WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
Leif Boman	x		x		
Victoria Schwartz		x		x	x

Sampling Equipment			
☒ Sample Container		Carboy	
Dipper		Van Dorn	
☒ Syringe		Pole	
Syringe Lot#	2090604	Filter Lot#	17413308
Secchi Equipment ID:	Light		
Collection Method			
Wading		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:	Shrimp Trap

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	1233	1.1	0.3	5.57	74.7	30.7	7.24	0.6	659	0.32

Biological Samples Collected: LVI

SBIO Visit ID: 85606 HA ID: RPS ID: Macrophyte ID: 12283 LIMS ID: 2353393

Parameter Suite	Parameter Methods (LIMS Test Codes)			Preservation								
				Type	Lot#	Expiration Date	pH Check					
Microbiology												
Chlorophyll	CHLSUITE-W			ICE								
Physical/Aggregate Nutrients	ALKALINITY, TURBIDITY, W-F, W-TSS			ICE								
	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*	132275	12/07/2022	H2SO4 pH<2				
Metals	W-ICPMS	W-ICP	W-HARD	ICE	HNO3**	NA1105100	06/07/2023	HNO3 pH<2				
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:	Sunny, clear, breezy											
Comments on COC:												
Relinquish Date:	08/30/2022	Signature:										

LIMS EVENT ID: CEN-DIST-2022-08-31-02

WIN Import ID: 36073

Enter Field Parameters, Verify Station ID in LIMS DMT: KWM 10/12/22

QC Station ID, Field Parameters in LIMS DMT: VLS 10/13/22

Save Field Sheets on Network: KWM 10/14/22 (Initials/Date)

Migrate Data to WIN: KWM 10/14/22 (Initials/Date)

(Initials/Date)

(Initials/Date)

DEP FORM FD 9000-31: LAKE OBSERVATION FIELD SHEET

SAMPLE ID: _____ MACROPHYTE ID: _____ LATITUDE: 28.07484
COUNTY: Brevard STORET #: G3CE0064 LONGITUDE: -80.7748
DATE: 8/30/22 TIME: 12:33 SAMPLING AGENCY: 21PCEN
SITE NAME: Sawgrass Lake E of Center WBID: 2893X2
FIELD ID/NAME: G3CE0064 LAKE SIZE: _____ RQ: 2022-05-30-16

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>100</u>								Land Use Source & Year: _____				
Local Watershed Erosion (select one) : ☒ None ☐ Slight ☐ Moderate ☐ Heavy								Artificially Impounded ☒ Yes ☐ No				
Local Watershed NPS Pollution : ☒ No evidence ☐ Slight ☐ Moderate ☐ Heavy												
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>20</u>		<u>20</u> 19 18 17 16			15 14 13 12 11			10 9 8 7 6			5 4 3 2 1	
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>20</u>		<u>20</u> 19 18 17 16			15 14 13 12 11			10 9 8 7 6			5 4 3 2 1	
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>19</u>		<u>20</u> 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 # <u>132275</u> Exp. Date: <u>12/7/22</u> Alkalinity Sample Taken? ☒ Yes ☐ No Water Level ☒ Low ☒ Normal ☐ High								Water Odors: ☒ Normal ☐ Sewage ☐ Petroleum ☐ Other _____			
Meter Readings: Top: Depth (M) <u>0.3</u> Temp. (°C) <u>30.7</u> pH (SU) <u>7.24</u> D.O. (MG/L) <u>5.57</u> D.O. Sat. (%) <u>74.7</u> Cond. (UMHO/CM) <u>659</u> Salinity (PPT) <u>0.32</u> Mid-Depth: _____ Bottom: _____								Water Surface Oils: ☒ None ☐ Sheen/Slick ☐ Glob ☐ Other _____			
Meter ID: <u>Shrimp Trap</u>								Clarity: ☒ Clear ☐ Opaque ☐ Turbid ☐ 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>0.6</u> Total Station Depth (M) <u>1.1</u> VOB ☐			
Sediment Type: (may check more than one) ☐ 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 ☒ ☒ ☐ ☐ ← ABSENT Exotic Apple Snails ☒ ☐ ☐ ☐			
Weather Conditions : <u>Sunny</u> <u>managed by SSRWMD</u>								<u>Conducted via airboat</u>			

SAMPLING TEAM: Leif Boman / Victoria Schwartz SIGNATURE: [Signature] DATE: 8/30/22

DEP FORM FD 9000-27 LAKE VEGETATION INDEX FIELD SHEET

Waterbody: <u>Sawgrass Lake</u>		County: <u>Brevard</u>		Date: <u>8/30/22</u>							
Analyst: <u>Leif Boman/Victoria Schwartz</u>		Signature: <u>[Signature]</u>		STORET: <u>G3CE0064</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): <u>1, 4, 7, 10</u> 2, 5, 8, 11 3, 6, 9, 12							
SPECIES	1	4	7	10	Collected? (✓)	SPECIES	1	4	7	10	Collected? (✓)
Acer rubrum	/	/	/	/		Fuirena scirpoides					
Alternanthera philoxeroides	/	/	/	/		Gordonia lasianthus					
Amaranthus australis	/	/	/	/		Habenaria repens					
Andropogon sp.						Hibiscus coccineus					
Azolla filiculoides (A. caroliniana)	/	/	/	/		Hibiscus grandiflora	/	/	/	/	
Baccharis sp.						Hydrilla verticillata ← NONE	/	/	/	/	
Bacopa caroliniana						Hydrocotyle sp.	/	/	/	/	
Bacopa monnieri						Hygrophila polysperma					
Bidens alba						Hymenocallis sp.					
Bidens laevis						*Hypericum fasciculatum					
Bidens mitis						*Hypericum hypericoides					
Blechnum serrulatum		/	/	/		*Hypericum myrtifolium					
Boehmeria cylindrica	/	/	/	/		Ilex cassine					
Brasenia schreberi						Ipomoea aquatica					
Cabomba caroliniana						Ipomoea sagittata					
Canna						Itea virginica					
Centella asiatica						Juncus effusus					
Cephalanthus occidentalis	/	/	/	/		*Juncus marginatus					
Ceratophyllum demersum						*Juncus megacephalus					
Chara sp.						Juncus repens					
Cladium jamaicense		/	/	/		*Juncus scirpoides					
Colocasia esculenta						Lachnanthes caroliniana					
*Commelina						Leersia hexandra					
Crinum americanum						Landoltia punctata (Spirodela punctata)					
* Cyperus alternifolius (C. involucratus)						Lemna sp.	/	/	/	/	
Cyperus articulatus						Leucothoe racemosa (Eubotrys racemosa)					
Cyperus haspan						Limnium spongia					
*Cyperus lecontei						Limnophila sessiliflora					
*Cyperus polystachyos						Liquidambar styraciflua					
*Cyperus odoratus	/	/	/	/		*Ludwigia arcuata					
*Cyperus surinamensis						*Ludwigia grandiflora					
Cyrtilla racemiflora						*Ludwigia hexapetala					
Decodon verticillatus						*Ludwigia leptocarpa					
Diodia virginiana						Ludwigia (native)					
*Echinochloa crus-galli						*Ludwigia octovalvis	/	/	/	/	
*Echinochloa muricatum						*Ludwigia peruviana					
Echinochloa walteri						*Ludwigia repens					
Eclipta prostrata (E. alba)	/	/	/	/		Ludwigia suffruticosa					
Eichhornia crassipes	/	/	/	/		Luziola fluitans (Hydrochloa carolinensis)					
*Eleocharis						Magnolia virginiana					
Eleocharis cellulosa						Mayaca fluviatilis					
*Eleocharis elongata						Melaleuca quinquenervia					
Eleocharis equisetoides						Micranthemum glomeratum					
Eleocharis interstincta						Micranthemum umbrosum					
Eleocharis submersed viviparous						Mikania scandens	/	/	/	/	
*Eriocaulon compressum						Mimosa pigra	/	/	/	/	
*Eriocaulon decangulare						Myrica cerifera	/	/	/	/	
Eupatorium capillifolium	/	/	/	/							
Fraxinus											

FORM FD 9000-27: LAKE VEGETATION INDEX FIELD SHEET

Site: <u>Sawgrass Lake</u>					Date: <u>8/30/22</u>						
SPECIES	1	4	7	10	Collected? (✓)	SPECIES	1	4	7	10	Collected? (✓)
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 mexicana						*Sesbania					
Nymphaea odorata						Solidago sp.					
Nymphoides aquatica						Sparganium americanum					
Nyssa sylvatica var. biflora						Spartina bakeri					
Orontium aquaticum						Spirodela polyrrhiza					
Osmunda cinnamomea						Taxodium sp.					
Osmunda regalis						Thalia geniculata					
Panicum hemitomon						Thelypteris interrupta					
Panicum repens						Thelypteris palustris					
Paspalidium geminatum						Triadenum virginicum					
*Paspalum repens						Typha sp.					
Paspalum urvillei						Urochloa mutica (Brachiaria mutica)					
Peltandra sp.						*Utricularia foliosa					
Persea sp.						*Utricularia gibba (U. biflora)					
Pennisetum purpureum						*Utricularia inflata					
Phragmites australis						*Utricularia purpurea					
Pinus elliotii						*Utricularia radiata					
Pistia stratioides						*Utricularia resupinata					
Pluchea sp.						Vallisneria americana					
*Polygonum glabrum (densiflorum)						Vigna luteola					
Polygonum hirsutum						Vitis sp.					
*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											
*Rhexia						<u>Kosteletzkya pentacarpos</u>					
*Rhynchospora corniculata											
*Rhynchospora inundata											
Rhynchospora nitens											
Ricciocarpus natans											
Sabal palmetto											
Sacciolepis striata											
*Sagittaria filiformis											
*Sagittaria graminea											
*Sagittaria isoetiformis											
Sagittaria lancifolia											
Sagittaria latifolia											

4/7/10/1

LVI Map for Sawgrass Lake, WBID 2893X2

