



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

STRATEGIC MONITORING PLAN Field Sheet

July 2022

Meter
Passed End
of Day CCV

Yes / No

WIN Station Name:	BEAR GULLY LAKE AT CENTER				Sample Date:	7/26/2023	
WIN / Field ID:	G2CE0282	ORG ID:	21FLCEN	ENR:	-	Latitude:	28.624767
County:	SEMINOLE	WBID:	3009	LAKE		Longitude:	-81.272267
Receiving Body of Water:	-				RQ-	2023-07-17-34	

Sampling Team Members	WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
Leif Boman					
Jessie Atchison					

Sampling Equipment			
x	Sample Container		Carboy
	Dipper		Van Dorn
x	Syringe		Pole
Syringe Lot# 2327923		Filter Lot# 17769663	
Secchi Equipment ID:		Knothead	
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:	Craw Daddy
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 (PPTth)
EST	1313	2.7	0.3	10.16	141.4	31.9	8.29	0.5	165	0.08
	1317		2	5.53	74.2	30	7.43		165.6	0.08
	1318		2.2	2.92	30.7	29.8	6.88		167.5	0.08

Biological Samples Collected: None

SBIO Visit ID: 87503 HA ID: RPS ID: Macrophyte ID: 12523 LIMS Sample ID In The Macrophyte Module: 2427255

Parameter Suite	Parameter Methods (LIMS Test Codes)	Preservation				
		Type	Lot#	Expiration Date	pH Check	
Microbiology						
Chlorophyll						
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#:2327923 ; Filter Lot#:17769663			
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**	NA2230040	09/01/2023	HNO3 pH<2
Organics (LC)	W-E8321-DI W-E8321-MS		MCAA***			
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:	85 and sunny					
Comments on COC:						
Relinquish Date:	07/26/2023	Signature:				

LIMS EVENT ID: CEN-DIST-2023-07-27-02

WIN Import ID: 42376

Enter Field Parameters, Verify Station ID In LIMS DMT: KWM 8/3/23

QC Station ID, Field Parameters In LIMS DMT: VLS 8/7/23

Save Field Sheets on Network: KWM 8/29/23 (Initials/Date)

Migrate Data to WIN: KWM 8/29/23 (Initials/Date)

(Initials/Date)

(Initials/Date)

DEP FORM FD 9000-31: LAKE OBSERVATION FIELD SHEET

SAMPLE ID: _____ MACROPHYTE ID: _____ LATITUDE: 28.624767
 COUNTY: Seminole STORET #: G12CE0282 LONGITUDE: -81.272267
 DATE: 7/26/23 TIME: 133 SAMPLING AGENCY: FDEP
 SITE NAME: Bear Gulley Lake WBID: 3009
 FIELD ID/NAME: Bear Gulley Lake @ center LAKE SIZE: _____ RQ: 2023-07-17-34

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>2</u>				<u>98</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>8</u>		20 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>7</u>		20 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>6</u>		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 #: <u>SA3013020</u> Exp. Date: <u>1/25/24</u> 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: Top: <u>0.3</u> <u>31.9</u> <u>8.29</u> <u>10.16</u> <u>141.4</u> <u>165</u> <u>0.08</u> Mid-Depth: <u>2.0</u> <u>30</u> <u>7.43</u> <u>5.53</u> <u>74.2</u> <u>165.6</u> <u>0.08</u> Bottom: <u>2.2</u> <u>29.8</u> <u>6.88</u> <u>2.92</u> <u>30.7</u> <u>167.5</u> <u>0.08</u>						Clarity: ☐ Clear ☒ Opaque ☐ Turbid ☐ Slightly Turbid Color: ☐ Clear ☒ Tannic ☐ Green SECCHI (M) <u>0.5</u> Total Station Depth (M) <u>2.7</u> 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 ☒ ☐ ☐ ☐					
Weather Conditions: <u>85 & sunny</u>						Additional Notes:					
SAMPLING TEAM: <u>Jessie Atkinson & Leif Borneau</u>						SIGNATURE: <u>Jessie Atkinson</u>					
						DATE: <u>7/26/23</u>					

DEP FORM FD 9000-27 LAKE VEGETATION INDEX FIELD SHEET

Waterbody: <u>Bear Gulley Lake</u>		County: <u>Seminole</u>		Date:	
Analyst:		Signature:		STORET: <u>ACE0282</u>	
Except where noted as "sp." species level identification required. *Genera that may require lab verification* Plants in bold = FLEPPC invasive exotic.				Lake units sampled (circle one group): 1, 4, 7, 10 <u>2, 5, 8, 11</u> 3, 6, 9, 12	
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		Collected? (✓)		SPECIES	
258M		25811			
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 jamalense				Landoltia punctata (Spirodela punctata)	
Cliftonia monophylla				Lemna sp.	
Colocasia esculenta	/		/	Leucothoe racemosa (Eubotrys racemosa)	
*Commelina				Limnium spongiosa	
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	
Cyrtia 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					
Eleocharis equisetoides					
Eleocharis interstincta					
*Eriocaulon compressum					
*Eriocaulon decangulare					
Eupatorium capillifolium	/				
*Fuirena					
Fuirena scirpoidea					
Gordonia lasianthus					

FORM FD 9000-27: LAKE VEGETATION INDEX FIELD SHEET

Site: <u>Bear Gulley Lake</u>					Date: _____						
SPECIES	2	5	8	11	Collected? (✓)	SPECIES	2	5	8	11	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 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 comuta					
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											
*Rhexia											
*Rhynchospora corniculata											
*Rhynchospora inundata											
Rhynchospora tracyi											
Ricciocarpus natans											
Sabal palmetto											
Sacciolepis striata											
*Sagittaria filiformis											
*Sagittaria graminea											
*Sagittaria isoetiformis											
Sagittaria lancifolia											
Sagittaria latifolia											

LVI Map for BEAR GULLEY LAKE, WBID 3009

