



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2020

Meter Passed End

of Day CCV

☒ Yes

☐ No

WIN Station Name: Hidden Lake @ Center

Date: 5/24/2021

WIN/Field ID: G4CE0158

WBID: 1347B

ENR: -

Latitude: 28.8092

County: SUMTER

Org ID: 21FLCEN

Longitude: -81.99

Receiving Body of Water: Withlacoochee

RQ- 2021-04-05-15

Sampling Team Members	WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
☒ Victoria Schwartz	☒	☐	☒	☐	☐
☒ Terry Riordan	☐	☒	☐	☒	☒
☐	☐	☐	☐	☐	☐
☐	☐	☐	☐	☐	☐

Sampling Equipment	
☒ Sample Container	☐ Carboy
☐ Dipper	☐ Van Dorn
☒ Syringe	☐ Pole
Depth measured with: Secchi	
Secchi Equipment ID: Knothead	
Collection Method	
☐ Wading	☐ Canoe/Kayak
☐ From Shore	☐ Electric Motor
☐ Other	☒ Gasoline Motor

Water Level: ☒ Normal ☐ Low ☐ High ☐ Dry ☐ Pooled ☐ Flooded		Meter ID# CRAW DADDY	
Photos: YES	Flow: NA	Tide:	Tide Times: High: Low:
Biological Samples Collected: ☐ None ☐ HA ☐ SCI ☐ RPS ☐ Algae ID ☐ LVS ☒ LVI Other:			
SBIO ID Numbers: SBIO 82455		MACROPHYTE 11819	
		LIMS 2249806	
Notes:			

Duplicate Sample	
Time Zone: EST	Time: _____
Field ID: N/A	(WIN ID_DUP)
WIN DMT Activity ID: _____	

Blank	
Time Zone: _____	Time: _____
Field ID: _____	(Blank Type_DDDMMYY)
DI Source: _____	Location: _____
DI Type: _____	Equipment ID: _____
DI Container (Name/ID):	DI Container Type:

LIMS EVENT ID: CEN-DIST-2021-05-25-01	WIN Import ID: 27965
Enter Field Parameters, Verify Station ID In LIMS DMT: KWM 6/4/21	QC Station ID, Field Parameters In LIMS DMT: EB 7/13/21
(Initials/Date)	(Initials/Date)
Scan/Save Field Sheets KWM 8/6/21	Migrate Data to WIN: KWM 8/6/21
(Initials/Date)	(Initials/Date)
Verify Data In WIN:	(Initials/Date)



RQ-2021-04-05-15

Customer: WQAP

Project ID: SMP

Collected By: Victoria Schwartz, Terry Riordan

Field Report Prepared By: Victoria Schwartz

Sampling Agency: FDEP

Place Label Here

WIN ID/Field ID:



G4CE0158

Location: Hidden Lake @ Center

Comments:

Matrix: Fresh

(Check one)

☒ GRAB☐ COMPOSITE

Date	Time	DO (mg/L)	DO (%SAT)	Temp. (C°)	pH	Sample Depth (m)	Secchi Disk (m)	Total Depth (m)	Sp COND (µmhos/cm)	Salinity (PPT)
5/24/2021	1228 EST	6.64	84.2	27.5	7.67	0.3	1.7 ☐ VOB (S)	3.2	361.4	0.17
	1232	4.54	56.5	26.4	7.39	2.0	Central Lab please use top row for login purposes		362.8	0.17
	1234 EST	1.69	20.5	25.7	7.16	2.7			362	0.17

Parameter Suite	Parameter Methods	Preservation	pH Check	# Bottles sent to Lab	Bottle Group
Preserved Nutrients (P-500ML)	☒ W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP Lot # SA120053 Exp: 10/5/21	☒ Ice ☒ H2SO4*	☒ <2	1	A
Metals (P-500ML)	☐ W-ICPMS ☐ W-ICP ☐ W-HARD Lot # Exp:	☐ Ice ☐ HNO3*	☐ <2		
Filtered Nutrients (P125ML)	☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter Filter Lot # 17135566 Syringe Lot # 1091364	☒ Ice		1	A
Chlorophyll (BP-1L)	☒ CHLSUITE-W	☒ Ice		1	A
Physical/Aggregate (Fresh) (P-1L)	☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-CL-IC / W-COLOR / W-SO4-IC / W-TDS	☒ Ice		1	A
Physical/Aggregate (Marine) (P-1L)	☐ Alkalinity / W-BR-IC / W-F / W-TSS / TURBIDITY	☐ Ice			
Macroinvertebrates (PJ-2L)	☐ MI-FW-QLDC	☐ Formalin			
Periphyton (PT-50ML)	☐ ALGAE-ID	☐ Ice			
Microbiology (Contract Lab Bottle)	☐ E Coli ☐ F Coli ☐ Enterococci ☐ Contract Lab	☐ Ice			
Molecular (QPCR-P-500ML)	☐ PCR-HF183 ☐ PCR-BacR ☐ PCR-DG3 ☐ PCR-GULL2 ☐ PCR-GFD	☐ Ice			
Tracers (BG-500ML)	☐ W-E8321-DI ☐ W-E8321-MS	☐ Ice			
Pesticides (BG-500ML) (BG-1L)	☐ W-E8321-DI ☐ WE8321-MS ☐ W-PSNP-TQ ☐ W-CT-CL-R ☐ W-PCL-SQ-R ☐ W-CARB-AA (5 ml of MCAA** Buffer Solution) ☐ W-DIELDRIN	☐ Ice			
Phytoplankton/Periphyton	DTM-QL-C PEN-QL-C DTY-QN-C PKD-QN-C DTM-QN-C PRN-QN-C PKD-QN-BV	☐ Ice			

Name:
Victoria Schwartz
Terry Riordan

Signature:

Victoria Schwartz

Date:

5/24/21

*2.0 ml of Preservative used unless noted otherwise.

**MCAA: Monochloroacetic acid buffer solution

DEP FORM FD 9000-31: LAKE OBSERVATION FIELD SHEET

SAMPLE ID: _____ **MACROPHYTE ID:** _____ **LATITUDE:** 28.8092
COUNTY: Sumter **STORET #:** G4CE0158 **LONGITUDE:** -81.99232
DATE: 5/24/21 **TIME:** 12:28 **SAMPLING AGENCY:** 21PLCEN
SITE NAME: Hidden Lake @ Center **WBID:** 1347B
FIELD ID/NAME: G4CE0158 **LAKE SIZE:** 0.00946 **RQ:** 2021-04-05-15
9 miles

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>15</u>			<u>10</u>	<u>65</u>	<u>10</u>														
Local Watershed Erosion (select one): ☐ None ☐ Slight ☒ Moderate ☐ Heavy Local Watershed NPS Pollution: ☐ No evidence ☐ Slight ☒ Moderate ☐ Heavy										Artificially Impounded ☐ Yes ☒ No					Land Use Source & Year:				
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>15</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>11</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>13</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>SA 120053</u> Exp. Date: <u>10/5/21</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>27.5</u> <u>7.67</u> <u>6.64</u> <u>84.2</u> <u>361.4</u> <u>0.17</u> Mid-Depth: <u>2.0</u> <u>26.4</u> <u>7.39</u> <u>4.54</u> <u>56.5</u> <u>362.8</u> <u>0.17</u> Bottom: <u>2.7</u> <u>25.7</u> <u>7.16</u> <u>1.69</u> <u>20.5</u> <u>362.0</u> <u>0.17</u>								Water Surface Oils: ☒ None ☐ Sheen/Slick ☐ Glob ☐ Other _____							
Meter ID: <u>Craw Naddy</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>1.7</u> Total Station Depth (M) <u>3.2</u> VOB ☐							
Biological Communities: LVI Conducted? ☒ Yes ☐ No Phytoplankton Sample Taken? ☐ Yes ☒ No Sample Preserved? <u>NA</u> ☒ Yes ☒ No Lot #: _____ Exp. Date: _____ Algal Bloom/Algal ID Sample Taken? Yes ☐ No ☒ Don't Know Active Vegetation Mgmt? ☐ Yes ☐ No ☒ Don't Know								Sediment Odors: ☒ Normal ☐ Other (Specify): _____ ☐ Anaerobic							
Abundance: Absent Rare Common Abundant Periphyton ☒ ☐ ☐ ☐ Nuisance Plants ☐ ☐ ☒ ☐ Submersed Plants ☒ ☐ ☐ ☐ Exotic Apple Snails ☐ ☒ ☐ ☐								Additional Notes: • high water ~ 1.5 ft above • fish abundant • N shore along gravel path is mowed close to shoreline							
Weather Conditions: <u>Sunny/hot</u>															
SAMPLING TEAM: <u>Terry Riordan + Victoria Schwartz</u>										SIGNATURE: <u>[Signature]</u>				DATE: <u>5/24/21</u>	

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

WBID: 1347 B

STORET STATION NUMBER: G4CE0158	DATE (M/D/Y) 5/24/21	LAKE NAME Hidden Lake		FIELD ID / NAME: G4CE0158																	
ECO-REGION:	COUNTY: Sumter	SAMPLING LOCATION/DESCRIPTION: Hidden Lake @ Center		LAKE SIZE: 0.00946 sq miles																	
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 ☐																	
HYDROLOGY				Impounded, hydrology of system artificially controlled ☐																	
Color	Very clear, uncolored water* (benthic sampling appropriate) ☐	Water somewhat tannin stained (benthic sampling appropriate) ☒		Dark, discolored water (water color 20 PCU or higher) ☐																	
	Optimal	Suboptimal 1.7m		Marginal																	
Secchi 12	Secchi >3 m Or VOB	Secchi(m)	3	2.6	2.2	1.8	1.4	1.0	0.9	0.8	0.7	0.6	0.5	0.4	0.3	0.2	0.1				
	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	
Vegetation Quality 16	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 15	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 10	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 13	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 13	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 12	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 89	COMMENTS: Lake used by golf club residents for fishing																				

ANALYSIS DATE: 5/24/21	ANALYST: Terry Kieran + Victoria Schwartz	SIGNATURE: <i>[Signature]</i>
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DEP FORM FD 9000-27 LAKE VEGETATION INDEX FIELD SHEET

Waterbody: <u>Hidden Lake</u>		County: <u>Sumter</u>		Date: <u>5/24/21</u>							
Analyst: <u>Terry Riordan + Victoria Schwartz</u>		Signature: <u>[Signature]</u>		STORET: <u>64CE01S8</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	2	5	8	11	Collected? (✓)	SPECIES	2	5	8	11	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					
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	/	/	/	/	✓	Limnobia 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>Hidden Lake</u>					Date: <u>5/24/21</u>						
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 mexicana						*Sesbania					
Nymphaea odorata						Solidago sp.					
Nymphoides aquatica						Sparganium americanum					
Nyssa sylvatica var. biflora			/			Spartina bakeri					
Orontium aquaticum						Spirodela polyrhiza					
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 (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 (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						Ximenia americana (Upl)					
*Rhexia						Unknown shrub in front of pond	/				✓
*Rhynchospora corniculata						possible Upl Rhynchospora	/				✓
*Rhynchospora inundata	/	/			✓	Inundata					
Rhynchospora nitens						cicuta → Cicuta maculata	/				
Ricciocarpus natans											
Sabal palmetto						Cornus florida foemina					
Sacciolepis striata											
*Sagittaria filiformis						pepper vine → Ampelopsis					
*Sagittaria graminea						arborescens					
*Sagittaria isoetiformis											
Sagittaria lancifolia											
Sagittaria latifolia											

LVI Map for Hidden Lake, WBID 1347B

2/5/8/11

