

LVI

Site Name Crooked Lake @ Center Sample Date 09/23/2019

WBID 2916A WIN ID G2CE0216 RQ - 2019-09-02-64

	Initial/Date	QC Initial/Date
Water chemistry data to LIMS	NA 11/22/2019	
Create SBIO station visit	NA 11/22/2019	n/a
Vascular Entry (add LIMS ID)	NA 11/22/2019	JR 12/5/19
Lake Observation Sheet Entry	NA 11/22/2019	JR 12/5/19
Authorize SBIO data	JR 12/5/19	n/a
Scan all sheets to 21FLCEN folder	JR 12/5/19	n/a
LIMS/WIN migration		n/a
File in cabinet		n/a

Comments/notes:

DEP FORM FD 9000-31: LAKE OBSERVATION FIELD SHEET

SAMPLE ID: 80490 MACROPHYTE ID: _____ LATITUDE: 29.15291203
 COUNTY: Lake STORET #: G2CE0216 LONGITUDE: -81.60240259
 DATE: 09/23/2019 TIME: 1433 SAMPLING AGENCY: FDEP
 SITE NAME: Crooked Lake WBID: 2916A
 FIELD ID/NAME: G2CE0216 LAKE SIZE: _____ RQ: 2019-09-02-64

WATERSHED / LAKESIDE FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category - from GIS) : Forest/Natural <u>100</u> Silviculture _____ Field/Pasture _____ Agricultural _____ Residential _____ Commercial _____ Industrial _____ Other (Specify) _____				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				Land Use Source & Year: _____	
STORMWATER INPUTS <u>20</u>	Stormwater enters system via sheet flow over non-cultivated and/or natural vegetation 20 19 18 17 16	Some direct stormwater inputs (ditches, pipes, cultivated vegetation < 10%) but good BMPs in place 15 14 13 12 11	Moderate direct inputs of stormwater (ditches, pipes, cultivated vegetation 11%-50%) but few BMPs in place 10 9 8 7 6	Much direct input of stormwater (ditches, pipes, cultivated vegetation > 51%) and no or ineffective BMPs in place 5 4 3 2 1	
LAKESIDE ALTERATIONS <u>20</u>	Very few man-made structures, roads, or other disturbance adjacent to lake (<10% lakeside affected) 20 19 18 17 16	Moderate disturbance visible - structures, roads or other (10%-49% lakeside affected) 15 14 13 12 11	Many structures, roads or other human disturbance visible (50%-70% lakeside affected) 10 9 8 7 6	Highly developed or disturbed (>70% of lakeside affected) 5 4 3 2 1	
BUFFER ZONE <u>20</u>	Expected native vegetation between uplands and littoral zone, greater than 90% of shore with >18 m buffer 20 19 18 17 16	89%-51% of shoreline with >18m buffer or >75% with 10m to 18m buffer 15 14 13 12 11	50%-30% of shoreline with >18m buffer or 50%-74% with 10m to 18m buffer 10 9 8 7 6	< 29% of shoreline with >18m buffer 5 4 3 2 1	

WATER / SUBSTRATE / BIOLOGICAL: SAMPLES AND OBSERVATIONS

Water: Nutrient Sample Taken? ☒ Yes ☐ No Preserved? ☒ Yes ☐ No pH < 2 ☒ Yes ☐ No Color Sample Taken? ☒ Yes ☐ No Lot # _____ Exp. Date: _____ 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>28.9</u> pH (SU) <u>4.98</u> D.O. (MG/L) <u>6.16</u> D.O. Sat. (%) <u>79.8</u> Cond. (UMHO/CM) <u>32.9</u> Salinity (PPT) <u>0.01</u> Mid-Depth: _____ Bottom: <u>3.1</u> <u>28.0</u> <u>4.89</u> <u>5.42</u> <u>69.0</u> <u>33.2</u> <u>0.01</u>		Water Surface Oils: ☒ None ☐ Sheen/Slick ☐ Glob ☐ Other _____	
Meter ID: _____		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>2.6</u> Total Station Depth (M) <u>3.6</u> VOB _____	
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		Sediment Odors: ☐ Normal ☐ Other (Specify): _____ ☐ Anaerobic	
Abundance: Absent Rare Common Abundant Periphyton ☒ ☐ ☐ ☐ Nuisance Plants ☒ ☐ ☐ ☐ Submersed Plants ☐ ☐ ☒ ☐ Exotic Apple Snails ☒ ☐ ☐ ☐		Additional Notes:	

Weather Conditions :

SAMPLING TEAM: Natalie Ayala/Terry Rordan

SIGNATURE: [Signature]

DATE: 9/23/2019



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2019

Data Qualified?

Yes / No

WIN Station Name: Crooked Lake @ Center

Date: 09/23/2019

WIN/ Field ID: G2CE0216

WBID: 2916A

Latitude: 29.15291203

(mm/dd/yyyy)

County: Lake

ORG ID: 21FLCEN

Longitude: -81.60240259

(Decimal Degrees)

Receiving Body of Water:

RQ-2019- 09-02-64

(Decimal Degrees)

Sampling Team Members					WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check	Sampling Equipment				
Terry Riordan										☒ Sample Container	☐ Van Dorn	☐ Pole		
Natalie Ayala										☐ Carboy	☒ Syringe			
										☐ Dipper	☐ Other			
										Depth Measured with Secchi Disk Line / Meter				
										Equipment ID Leadfoot, Knothead, Crusty/ Bucket, Mucky/Trap				
										Collection Method				
										☐ Wading	☐ Canoe/Kayak			
										☐ From Shore	☐ Electric Motor			
										☐ Other	☒ Gasoline Motor			
Water Level: Dry/ Pooled/ Low / Normal / High / Flooded					Motor ID# Craw / Daddy					Matrix: Fresh / Marine / DI				
Photos: Yes / No					Flow: No Flow / Intestinal / Flowing NA					Tide: Rising/ Falling/ Slack/ NA				
Tide Times: High Low														
Time Zone	Time	Total Depth (m)	Sample Depth (m)	Secchi Disk (m)	DO (mg/L)	DO (%SAT)	pH	Salinity (PPT)	Sp COND (µmhos/cm)	Temp. (C°)				
EST	1433		0.3		6.16	79.8	4.98	0.01	32.9	28.9				
CEN		3.6	3.1	2.6	5.42	69.0	4.89	0.01	33.2	28.0				
Biological Samples Collected: None HA SCI RPS Algae ID 7R LVS LVI Other:														
SBIO ID Numbers: SBIO-ID: 80490 HA-ID: RPS-ID: Macrophyte-ID: 11545 LIMS#: 2121770														
Parameter Suite		Parameter Methods					Preservation	Lot#	Expiration	pH Check				
Preserved Nutrients		☒ W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP					☒ Ice ☒ H2SO4	SA7163030	10/19	☒ <2				
Metals		☐ W-ICPMS ☐ W-ICP					☐ Ice ☐ HNO3			☐ <2				
Filtered Nutrients		☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter					☒ Ice	16930280						
Chlorophyll		☒ CHLSUITE-W					☒ Ice							
Physical/Aggregate (Fresh)		☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-CL-IC / W-COLOR / W-SO4-IC / W-TDS					☒ Ice							
Physical/Aggregate (Marine)		☐ Alkalinity / W-F / W-TSS / TURBIDITY					☐ Ice							
Macroinvertebrates		☐ MI-FW-QLDC					☐ Formalin							
Periphyton		☐ ALGAE-ID					☐ Ice							
Microbiology		☐ E Coli ☐ F Coli ☐ Enterococci					☐ Ice							
Molecular		☐ PCR-FILTER ☐ PCR-BacR ☐ PCR-GULL2 ☐ PCR-HF183 ☐ PCR-DG3 ☐ PCR-GFD					☐ Ice							
Tracers		☐ W-E8321-DI ☐ W-E8321-MS					☐ Ice							
Pesticides		☐ W-PSNP-TQ ☐ W-CT-CL-R ☐ W-E8321-DI ☐ W-PCL-SQ-R ☐ WE8321-MS ☐ W-CARB-AA					☐ Ice ☐ Other							
Phytoplankton		☐ DTY-QN-C ☐ PKD-QN-C					☐ Ice							

Notes:

Dirt Ramp @ 29.15366451 -81.60173215

WIN ID / Field ID →

Crooked Lake @ Center

Signature:

Date:

9/23/19



G2CE0216

LIMS EVENT ID: CENT-DIST-2019-09-24-02

Enter Field Parameters, Verify Station ID in LIMS DMT: NA 11/22/2019

QC Station ID, Field Parameters in LIMS DMT: 7R 12/5/19

Scan/Save Field Sheets 7R 12/5/19

Migrate Data to WIN:

Verify Data in WIN:

(Initials/Date)

(Initials/Date)

(Initials/Date)

(Initials/Date)

DEP FORM FD 9000-27 LAKE VEGETATION INDEX FIELD SHEET

Waterbody: <u>Crooked Lake</u>	County: <u>LAKE</u>	Date: <u>9/23/19</u>
Analyst: <u>Terry Riordan / Natalie Ayala</u>	Signature: <u>[Signature]</u>	STORET: <u>G2CE0216</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						Fraxinus					
Alternanthera philoxeroides						Fuirena scirpoides	/	/		/	
Amaranthus australis						Gordonia lasianthus					
Andropogon sp.		/		/		Habenaria repens					
Azolla filiculoides (A. caroliniana)						Hibiscus coccineus					
Baccharis sp.						Hibiscus grandiflora					
Bacopa caroliniana						Hydrilla verticillata					
Bacopa monnieri						Hydrocotyle sp.					
Bidens alba						Hygrophila polysperma					
Bidens laevis						Hymenocallis sp.					
Bidens mitis						*Hypericum fasciculatum	/	/	/	/	
Blechnum serrulatum		/		/		*Hypericum hypericoides					
Boehmeria cylindrica						*Hypericum myrtifolium					
Brasenia schreberi						Ilex cassine	/	/	/	/	
Cabomba caroliniana						Ipomoea aquatica					
Canna						Ipomoea sagittata					
Centella asiatica	/					Itea virginica					
Cephalanthus occidentalis	/	/	/	/		Juncus effusus					
Ceratophyllum demersum						*Juncus marginatus					
Chara sp.						*Juncus megacephalus					
Cicuta maculata						Juncus repens					
Cinnamomum camphora						*Juncus scirpoides					
Cladium jamaicense	/	/				Lachnanthes caroliniana	/	/			
Colocasia esculenta						Leersia hexandra	/	/	/	/	
*Commelina						Landoltia punctata (Spirodela punctata)					
Crinum americanum						Lemna sp.					
*Cyperus alternifolius (C. involucratus)						Leucothoe racemosa (Eubotrys racemosa)					
Cyperus articulatus						Limnium spongia					
Cyperus haspan						Limnophila sessiliflora					
*Cyperus lecontei						Liquidambar styraciflua					
*Cyperus polystachyos						*Ludwigia arcuata	7/10 X			X 7/12	
*Cyperus odoratus						*Ludwigia grandiflora					
*Cyperus surinamensis						*Ludwigia hexapetala					
Cyrilla racemiflora						*Ludwigia leptocarpa					
Decodon verticillatus						Ludwigia (native)					
Diodia virginiana						*Ludwigia octovalvis					
*Echinochloa crus-galli						*Ludwigia peruviana					
*Echinochloa muricatum						*Ludwigia repens	7/10 X			X 7/12	
Echinochloa walteri						Ludwigia suffruticosa	/	/	/	/	
Eclipta prostrata (E. alba)						Luziola fluitans (Hydrochloa carolinensis)					
Eichhornia crassipes						Magnolia virginiana					
*Eleocharis						Mayaca fluviatilis	/	/			
Eleocharis cellulosa						Melaleuca quinquenervia					
*Eleocharis elongata						Micranthemum glomeratum	/				
Eleocharis equisetoides						Micranthemum umbrosum					
Eleocharis interstincta						Mikania scandens					
Eleocharis submersa viviparous	/	/	/			Mimosa pigra					
*Eriocaulon compressum	/	/			2 M	Myrica cerifera	/	/	/	/	
*Eriocaulon decangulare						Hypericum sp	/	/	/	/	
Eupatorium capillifolium	/	/				other present till	/	/	/	/	2 M

2 tall one

FORM FD 9000-27: LAKE VEGETATION INDEX FIELD SHEET

Site:						Date:					
SPECIES	2	8	5	11	Collected? (✓)	SPECIES	2	8	5	11	Collected? (✓)
Myriophyllum aquaticum						Salix caroliniana					
*Myriophyllum heterophyllum sp. native	/					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	/	/	/	/	PC*	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	/	/	/	/	PC*	Thelypteris interrupta					
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 foliosa					
Pennisetum purpureum						*Utricularia inflata					
Phragmites australis						*Utricularia purpurea	/	/	/	/	
Pinus elliotii	/					*Utricularia radiata					
Pistia stratioides						*Utricularia resupinata					
Pluchea sp.						Vallisneria americana					
*Polygonum glabrum (densiflorum)						Vitis sp.				/	
Polygonum hirsutum						*Websteria confervoides				/	
*Polygonum hydropiperoides						Wedelia trilobata (Sphagneticola trilobata)					
*Polygonum punctatum						Wolffiella spp.					
*Polygonum						Woodwardia virginica				/	
Pontederia cordata						Xyris sp.	/	/	/	/	
*Potamogeton diversifolius						Zizania aquatica					
*Potamogeton illinoensis						Zizaniopsis milacea					
*Potamogeton pusillus						Utricularia floridana	/	/	/	/	
*Potamogeton pectinatus (Stuckenia pectinatus)						Sesbania sp.	/	/	/	/	pic 2
Proserpinaca pectinata						Scleria reticularis	/	/	/	/	NA
*Rhexia						Endoneal grass?	/	/	/	/	NA
*Rhynchospora corniculata						Great panic grass	/	/	/	/	NA
*Rhynchospora inundata	/					plume grass	/	/	/	/	NA
Rhynchospora nitens						Rhynchospora mega? big	/	/	/	/	NA
Ricciocarpus natans						Syngonanthus flavidulus	/	/	/	/	NA
Sabal palmetto						Panicum verrucosum	/	/	/	/	NA
Sacciolepis striata						Coleorachis	/	/	/	/	NA
*Sagittaria filiformis						Rhynchospora chalarocephala	/	/	/	/	NA
*Sagittaria graminea	/	/	/	/							
*Sagittaria isoetiformis	/	/	/	/							
Sagittaria lancifolia											
Sagittaria latifolia											