

LVI

Site Name Coon Lake @ Center Sample Date 5/15/19
WBID 3174D WIN ID G4CE0162 RQ 2019-05-13-38

	Initial/Date	QC Initial/Date
Water chemistry data to LIMS	LMD 5/17/19	MKL 5/21/19
Create SBIO station visit 79618	LMD 5/17/19	n/a
Vascular Entry (add LIMS ID)	LMD 5/17/19	MKL 5/22/19
Lake Observation Sheet Entry	LMD 5/17/19	MKL 5/22/19
Authorize SBIO data	MKL 5/22/19	n/a
Scan all sheets to 21FLCEN folder	LMD 5/24/2019	n/a
LIMS/WIN migration		n/a
File in cabinet		n/a

Comments/notes:



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2019

Data Qualified?

Yes / No

WIN Station Name: Coon Lake @ Center

Date: 05/15/2019

(mm/dd/yyyy)

WIN/ Field ID: G4CE0162

WBID: 3174D

Latitude: 28.26688

(Decimal Degrees)

County: Osceola

ORG ID: 21FLCEN

Longitude: 81.18287

(Decimal Degrees)

Receiving Body of Water: _____

RQ-2019- 05-13-38

Sampling Team Members					WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check	Sampling Equipment									
<u>Drew Liddick</u> <u>Ashley O'Neal / Mike Linger</u> <u>Mike Drennan</u>										☒ Sample Container ☐ Van Dorn ☐ Pole ☐ Carboy ☒ Syringe ☐ Dipper ☐ Other _____ Depth Measured with <u>Secchi Disk Line / Meter</u> Equipment ID <u>Leadfoot, Knothead, Crusty/Bucket, Mucky/Trap</u>									
										Collection Method									
										☐ Wading ☐ Canoe/Kayak ☐ From Shore ☐ Electric Motor ☐ Other _____ ☒ Gasoline Motor									
Water Level: Dry/ Pooled/ Low / <u>Normal</u> / High / Flooded					Meter ID# <u>Scud Bucket</u>					Matrix: <u>Fresh</u> / Marine / DI									
Photos: Yes / <u>No</u>					Flow: No Flow / Intestinal / Flowing / <u>NA</u>					Tide: Rising/ Falling/ Slack/ <u>NA</u>					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	1442	2.8	0.3	0.7	7.06	89.5	6.31	0.06	132.5	27.5									
		3.8	2.3		6.64	82.5	6.19	0.06	132.6	26.8									
CEN		MKL	3.3																
Biological Samples Collected: None HA SCI RPS Algae ID LVS <u>LVI</u> Other: _____																			
SBIO ID Numbers: SBIO-ID: <u>79618</u> HA-ID: <u>15910</u> RPS-ID: _____ Macrophyte-ID: <u>1130</u> LIMS#: <u>2086807</u>																			
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		<u>SA9010030</u>		<u>4/10/20</u>		☒ <2						
Metals		☒ W-ICPMS ☐ W-ICP					☐ Ice ☐ HNO3						☐ <2						
Filtered Nutrients		☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter					☒ Ice		<u>13615055</u>										
Chlorophyll		☒ CHLSUITE-W					☒ Ice												
Physical/Aggregate (Fresh)		☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-CI-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 ☐ W-E8321-MS ☐ W-CAR8-AA					☐ Ice ☐ Other _____												
Phytoplankton		☐ DTY-QN-C ☐ PKD-QN-C					☐ Ice												

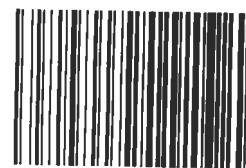
Notes:

Ramp: 28.252425, -81.168702 is on Trout Lake. Go through canal on NW of lake to enter Coon Lake

LVI event w/ SE ROC & Tally

WIN ID / Field ID →

Coon Lake @ Center



G4CE0162

Signature: Mike Linger

Date: 5/15/19

LIMS EVENT ID: CENT-DIST-2019-04-29-41

Enter Field Parameters, Verify Station ID In LIMS DMT: LMD 5/17/19

(Initials/Date)

QC Station ID, Field Parameters In LIMS DMT: MKL 5/21/19

(Initials/Date)

Scan/Save Field Sheets

(Initials/Date)

Migrate Data to WIN:

(Initials/Date)

Verify Data In WIN:

(Initials/Date)

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

STORET STATION NUMBER: <i>G4CE0162</i>	DATE (M/D/Y) <i>5/15/19</i>	LAKE NAME <i>Coon Lake</i>	FIELD ID / NAME: <i>G4CE0162</i>
ECO-REGION: <i>S. Coastal Plain</i>	COUNTY: <i>Osceola</i>	SAMPLING LOCATION/DESCRIPTION: <i>Coon Lake @ Center</i>	LAKE SIZE:
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	Marginal
Secchi ☐	Secchi >3 m Or VOB	3 2.6 2.2 1.8 1.4	1.0 0.9 0.8 0.7 0.6
☐	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6
Vegetation Quality ☐	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 ☐
☐	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6
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 ☐
☐	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6
Bottom Substrate Quality ☐	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 ☐
☐	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6
Lakeside Adverse Human Alterations ☐	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 ☐
☐	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6
Upland 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 ☐
☐	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6
Adverse Watershed Land Use ☐	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
TOTAL SCORE	COMMENTS:		
<i>84</i>			
ANALYSIS DATE: <i>5/15/19</i>	ANALYST: <i>Mike Linger, Mike Drennan</i>	SIGNATURE: <i>[Signature]</i>	

DEP FORM FD 9000-31: LAKE OBSERVATION FIELD SHEET

SAMPLE ID: 79618 MACROPHYTE ID: 1301 LATITUDE: 28.26688
COUNTY: Osceola STORET #: 64CE0162 LONGITUDE: -81.18287
DATE: 5/15/19 TIME: 1442 SAMPLING AGENCY: FDEP
SITE NAME: Coon Lake WBID: 3174 D
FIELD ID/NAME: 64CE0162 LAKE SIZE: Small RQ: -2019-05-13-38

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)							
<u>30</u>		<u>40</u>		<u>30</u>										
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		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>14</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>13</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 # _____ Exp. Date: _____ Alkalinity Sample Taken? ☒ Yes ☐ No Water Level ☐ Low ☒ Normal ☐ High								Water Odors: ☒ Normal ☐ Sewage ☐ Petroleum ☐ Other _____															
Meter Readings: Depth (M) Temp. (°C) pH (SU) D.O. (MG/L) D.O. Sat. (%) Cond. (UMHO/CM) Salinity (PPT) Top: <u>0.3</u> <u>27.5</u> <u>6.31</u> <u>7.06</u> <u>89.5</u> <u>132.5</u> <u>0.06</u> Mid-Depth: _____ Bottom: <u>2.3</u> <u>26.8</u> <u>6.19</u> <u>6.64</u> <u>82.5</u> <u>132.6</u> <u>0.06</u> Meter ID: <u>Scud Bucket</u>								Water Surface Oils: ☒ None ☐ Sheen/Slick ☐ Glob ☐ Other _____															
Clarity: ☒ Clear ☐ Opaque ☐ Turbid ☐ Slightly Turbid								Color: ☐ Clear ☒ Tannic ☐ Green															
SECCHI (M) <u>0.7</u>								Total Station Depth (M) <u>2.8</u>															
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 ☐ ☒ ☐ ☐ Exotic Apple Snails ☐ ☒ ☐ ☐								Additional Notes:							
Weather Conditions: <u>Ludwigia Grandiflora</u> <u>80's clear</u>																							
SAMPLING TEAM: <u>Mike Linger, Mike Drennan, Drew Liddick, Ashley O'neal</u>										SIGNATURE: <u>Mike Linger</u>				DATE: <u>5/15/19</u>									

DEP FORM FD 9000-27 LAKE VEGETATION INDEX FIELD SHEET

Waterbody: <u>Loon Lake</u>		County: <u>Osceola</u>		Date: <u>05/15/2019</u>							
Analyst: <u>Linger, O'neil, Liddic, Drennan</u>		Signature: <u>[Signature]</u>		STORET: <u>64CE0162</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): 1, 4, 7, 10 2, 5, 8, 11 <u>3, 6, 9, 12</u>							
SPECIES	3	6	9	12	Collected? (✓)	SPECIES	3	6	9	12	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		/	/	/	
*Cyperus odoratus						*Ludwigia grandiflora	/	/	/	/	
*Cyperus surinamensis						*Ludwigia hexapetala					
Cyrtilla racemiflora						*Ludwigia leptocarpa					
Decodon verticillatus						Ludwigia (native)	/	/	/	/	
Diodia virginiana						*Ludwigia octovalvis					
*Echinochloa crus-galli						*Ludwigia peruviana					
*Echinochloa muricatum						*Ludwigia repens					
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						Myrica cerifera	/	/	/	/	
*Eriocaulon decangulare											
Eupatorium capillifolium	/										

Section 12. No Dominant Species

FORM FD 9000-27: LAKE VEGETATION INDEX FIELD SHEET

Site: Coon Lake

Date: 5/15/19

SPECIES	7 6 9 12				Collected? (v)	SPECIES	3 6 9 12				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 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 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											
*Potamogeton pectinatus (Stuckenia pectinatus)											
Proserpinaca pectinata											
*Rhexia											
*Rhynchospora corniculata											
*Rhynchospora inundata											
Rhynchospora nitens											
Ricciocarpus natans											
Sabal palmetto											
Sacciolepis striata											
*Sagittaria filiformis											
*Sagittaria graminea											
*Sagittaria isoetiformis											
Sagittaria lancifolia	/	/	/	/							
Sagittaria latifolia											

WBID 3174D Coon Lake

