



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

PAGE ____ OF ____

February 2016

Data Qualified?
Yes / No

STORET Station Name: Little Lake Orange

Date: 10/19/2016
(mm/dd/yyyy)

STORET Station ID: 20020054

Latitude: 29.5775
(Decimal Degrees)

WBID: 2713D RQ-2016-10-17-14

ORG ID: 21 FLA

Longitude: 82.05563
(Decimal Degrees)

Receiving Body of Water:

Field ID:

County: Alachua

Sampling Team Members		WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
<u>Paul</u>						
<u>B. Davis</u>						

Sampling Equipment		
☒ Sample Container	☐ Van Dorn	☐ Pole
☐ Carboy	☐ Syringe	
☐ Dipper	☐ Other	
Equipment ID		
Collection Method		
☐ Wading From	☐ Via Boat	
☐ Shore	☐ Canoe/Kayak	
☐ Other (note below)	☐ Electric	
	☒ Motor	

Water Level: Dry / Low / Normal / High / Flooded

Matrix: Fresh / Marine / DI

Meter ID# Quanta Photos: Yes / No

Tide Falling: Yes / No / NA

Time	Time	Sample Depth (m)	Total Depth (m)	DO (mg/L)	DO (%SAT)	pH	Salinity (ppt)	Secchi Disk (m)	Sp COND (µmhos/cm)	Temp. (C°)
EST	1230	0.3	3.0	7.15	86.7	8.08	0.03	0.9	59	25.48
CEN	1235	2.0		6.66	85.0	7.31	0.03		59	25.45

Biological Samples Collected: None HA SCI LVS RPS LVI Other

Parameter Suite	Parameter Methods	Preservation	Acid Lot#	Expiration	pH
Preserved Nutrients	☒ W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP	☒ Ice ☒ H2SO4			☒ <2
Metals	☐ W-ICPMS ☐ W-ICP	☐ Ice ☐ HNO3			☐ <2
Filtered Nutrients	☒ W-PO4-F ☐ Field Filtered 0.45 µm Filter	☒ Ice			
Chlorophyll	☒ CHLSUITE-W	☒ Ice			
BOD	☐ BOD-UNIN	☐ Ice			
Physical/Aggregate (Kit A)	☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-CI-IC / W-COLOR / W-SO4-IC / W-TDS	☒ Ice			
Physical/Aggregate (Kit B)	☐ Alkalinity / W-F / W-TSS / TURBIDITY	☐ Ice			
Macroinvertebrates	☐ MI-FW-QLDC	☐ Formalin			
Microbiology	☐ E Coli ☐ F Coli ☐ Enteroc ☐ QPCR	☐ Ice			
Periphyton	☐ ALGAE-ID	☐ Ice			
Pesticides	☐ W-PSNP-TQ ☐ W-AHERB-AA ☐ W-PYR-AA-R ☐ W-PC-AA-SF ☐ W-UHERB-AA ☐ W-GLYPH	☐ Ice ☐ Other			

Place Preservative
(If Avail.)

Contains
1:1
Sulfuric Acid
SA-62091D
EXP: 07/27/17
Warning!
See SDS

Notes:

Field ID:

Date:

Time:

Little Orange Lake
Center

Storet:

Signature: [Signature]

Date:

Field Parameters Entered into LIMS: JP 10/21/16

(Initials/Date)

Field Parameters QC in LIMS:

(Initials/Date)

Date Migrated to STORET:

(Initials/Date)

Field Sheets Scanned/Saved:

(Initials/Date)

DEP FORM FD 9000-31: LAKE OBSERVATION FIELD SHEET

SAMPLE ID: _____ **MACROPHYTE ID:** _____ **LATITUDE:** _____
COUNTY: Alachua **STORET #:** 20020054 **LONGITUDE:** _____
DATE: 10/19/16 **TIME:** 1230 **SAMPLING AGENCY:** _____
SITE NAME: Little Orange Lake **WBID:** _____
FIELD ID/NAME: _____ **LAKE SIZE:** _____ **RQ:** _____

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)												
☐	☐	☐	☐	☐	☐	☐	☐												
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 <u>14</u>		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
LAKESIDE ALTERATIONS <u>13</u>		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)											
20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
BUFFER ZONE <u>13</u>		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

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 _____ Water Surface Oils: ☒ None ☐ Sheen/Slick ☐ Glob ☐ Other _____																																		
Meter Readings: Top: <u>0.3</u> <u>25.5</u> <u>8.1</u> <u>7.15</u> <u>86.7</u> <u>59</u> <u>0.03</u> Mid-Depth: _____ Bottom: <u>3.0</u> <u>25.4</u> <u>7.3</u> <u>6.7</u> <u>81</u> <u>59</u> <u>0.03</u> Meter ID: _____										Clarity: ☐ Clear ☐ Opaque ☐ Turbid ☒ Slightly Turbid Color: ☐ Clear ☒ Tannic ☐ Green SECCHI (M) <u>0.9</u> Total Station Depth (M) <u>3.0</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 ☐ 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: <table border="1"> <thead> <tr> <th></th> <th>Absent</th> <th>Rare</th> <th>Common</th> <th>Abundant</th> </tr> </thead> <tbody> <tr> <td>Periphyton</td> <td>☐</td> <td>☐</td> <td>☒</td> <td>☐</td> </tr> <tr> <td>Nuisance Plants</td> <td>☐</td> <td>☐</td> <td>☒</td> <td>☐</td> </tr> <tr> <td>Submersed Plants</td> <td>☐</td> <td>☒</td> <td>☐</td> <td>☐</td> </tr> <tr> <td>Exotic Apple Snails</td> <td>☒</td> <td>☐</td> <td>☐</td> <td>☐</td> </tr> </tbody> </table>											Absent	Rare	Common	Abundant	Periphyton	☐	☐	☒	☐	Nuisance Plants	☐	☐	☒	☐	Submersed Plants	☐	☒	☐	☐	Exotic Apple Snails	☒	☐	☐	☐
	Absent	Rare	Common	Abundant																																								
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Exotic Apple Snails	☒	☐	☐	☐																																								
Weather Conditions: <u>cloudy, sunny, nice</u>																																												
SAMPLING TEAM: <u>Jeremy Carruth / Brian Davis</u>										SIGNATURE: <u>Jeremy Carruth</u>					DATE: _____																													

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

STORET STATION NUMBER: 20020054	DATE (M/D/Y): 10/19/16	LAKE NAME Little Orange Lake		FIELD ID / NAME:		
ECO-REGION:	COUNTY: Alachua	SAMPLING LOCATION/DESCRIPTION:		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		Secchi (m)		Secchi (m)	
☐	20	19	18	17	16	15
☒	15	14	13	12	11	10
☐	9	8	7	6	5	4
☐	3	2	1	0.5	0.4	0.3
☐	0.2	0.1				
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	5	4	3
☐	2	1				
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	5	4	3
☐	2	1				
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	5	4	3
☐	2	1				
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	5	4	3
☐	2	1				
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	5	4	3
☐	2	1				
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	5	4	3
☐	2	1				
TOTAL SCORE	93		COMMENTS:			

ANALYSIS DATE: 10/14/16	ANALYST: J. Harris	SIGNATURE:
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FORM FD 9000-27: LAKE VEGETATION INDEX FIELD SHEET

Site:					Date:				
SPECIES				Collected? (✓)	SPECIES				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 herbacea				✓
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				
Paspalidium 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 cornuta				
Pluchea sp.					*Utricularia radiata				
*Polygonum glabrum (densiflorum)	✓	✓	✓	✓	Vallisneria americana				
*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					Juncus	✓	✓	✓	✓
*Rhexia					S				
*Rhynchospora corniculata									
*Rhynchospora inundata									
Rhynchospora tracyi									
Ricciocarpus natans									
Sabal palmetto									
Sacciolepis striata	✓	✓	✓	✓					
*Sagittaria filiformis									
*Sagittaria graminea									
*Sagittaria isoetiformis									
Sagittaria lancifolia	✓	✓	✓	✓					
Sagittaria latifolia									