



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

February 2016

Reference Lake
PAGE ____ OF ____

Data Qualified?

Yes / No

STORET Station Name:

Ocean Pond center

Date: 7/26/2016

(mm/dd/yyyy)

STORET Station ID:

21010011

Latitude:

30 13' 40"

(Decimal Degrees)

WBID: 2339

RQ-2016-

07-25-11

ORG ID: 21 FLA

Longitude:

82 26' 20"

(Decimal Degrees)

Receiving Body of Water:

N/A

Field ID:

County:

Baker

Sampling Team Members		WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
J Parnish			X		X	X
B Davis		X		X		

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

Meter ID#

134#3

Photos:

Yes

No

Matrix:

Fresh

Marine

DJ

Tide Falling:

Yes

No

NA

Time Zon	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	2.5	7.33	101.5	5.60	0.02	1.0	45	32.6
CEN	1233	1.5		6.33	83.7	5.25	0.02		45	29.9

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	73488	12/16	☒ <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-CHC / 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 ☐ Enter ☐ QPCR	☐ Ice			
Periphyton	☐ ALGAE-ID ☒ Periphyton Phytoplankton (Lugol's)	☒ Ice			
Pesticides	☐ W-PSNP-TQ ☐ W-AHERB-AA ☐ W-PYR-AA-R	☐ Ice			
	☐ W-PC-AA-SF ☐ W-UHERB-AA ☐ W-GLYPH	☐ Other			

Notes:

Place Label Here
(if Available)

Signature:

Date:

7/26/16

Field Parameters Entered into LIMS:

7/29/2016

Field Parameters QC in LIMS:

(Initials/Date)

Date Migrated to STORET:

NA
(Initials/Date)

Field Sheets Scanned/Saved:

(Initials/Date)

CALIBRATION AND VERIFICATION LOG (FDEP SOP FT 1000-FT 1500, FD 1000-FD 4000)

Boldly "X" this box if there is qualified data on this page.

Meter #4 YSI RQ- 2016-07-25-11 Project Ref. tubes

- Notes: (1) Numbers ≤ 4 , are rounded down; numbers ≥ 5 are rounded up (e.g., 5.15 becomes 5.2).
 (2) Always wait for meter to stabilize before recording any readings.
 (3) For Calibrations, record calibrated meter reading. Do not record initial meter reading before calibration.

Circle/Fill In: Lab Calibration or Calibration/Verification on Site L-6

Temperature (Quarterly) FT 1400

Date of Last Temperature Verification 17 / 2016

DO DEP SOP FT 1500	Name	Date	Time CT-ET	Temp	D.O. Chart mg/L	Meter D.O. mg/L	% DO	Probe Charge	Probe Gain	Pass / Fail	Lab / Field
Calibr.	J Pamm	7/26/16	735	23.30	8.53	8.53	100	/	/	P	L
ICV			738	23.3	8.53						
ICV				23.46	8.49	8.47	99.6	51.2	0.92912	P	L
CCV	B Pavis	7/26/16	743	25.13	8.249	8.26	100.1	52.3	0.92912	P	L

Report DO mg/L with one decimal figure and DO % saturation as a whole number with no decimals.

DO Acceptance criteria from Table ± 0.3 mg/L.

Rapid-Pulse Sensors: DO Gain Range 0.7 to 1.4; DO Charge Range 25-75.

Optical: DO gain range 0.85 to 1.15; DO charge N/A.

Steady-state & Galvanic Sensors: DO Gain & Charge N/A.

Spec. Cond. FT 1200	Name	Date	Time CT-ET	Lot #	Expir. Date	Standard μ hos/cm	Meter Reading μ hos/cm	Pass / Fail	Lab / Field
Calibr.		7/25/16							
ICV	B Pavis	7/26/16	744	160616A	6/17	1000	998	P	L
CCV			1446	151113A	11/16	100	101	P	L
CCV									

Report specific conductance as a whole number with no decimal figure.

Conductivity Acceptance criteria $\pm 5\%$

pH DEP SOP FT 1100	Name	Date	Time CT-ET	Lot #	Expir. Date	pH Buffer SU	Meter reading SU	mV	Pass / Fail	Lab / Field
Calibr.		7/25/16				7.0				
Calibr.						4.0				
Calibr.						10.0				
ICV	B Pavis	7/24/16	746	2510A81	10/17	7.0	7.04	-11.8	P	L
CCV			1448	2602556	1/18	4.0	4.03	165.8	P	L
CCV										

Report pH with one decimal place; pH Acceptance criteria ± 0.2 SU;

mV pH7 Range 0 $\pm$ 50;

mV pH 4 Range

+180 $\pm$ 50; mV pH 10 Range -180 $\pm$ 50;

Slope from 7 to 10 and 4 to 7 must be between 165

and 180mV

Depth (Quarterly)

Date of Last Depth Verification

Depth Sensor (Daily)	Name	Date	Time CT-ET	Zero the Sensor	ICV Value	Pass/ Fail	Lab / Field
Pressure mode in air				0.000			

ICV acceptance criteria $\pm 5\%$ or ± 0.05 m, whichever is greater

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Waterbody: <u>Ocean Pond 2101001</u>		County: <u>Columbia</u>		Date: <u>7/26/16</u>							
Analyst:		Signature: <u>[Signature]</u>		STORET:							
Except where noted as "sp." species level identification required. *Genera that may require lab verification*				Lake units sampled (circle one group):							
Plants in bold = FLEPPC invasive exotic.				1, 4, 7, 10 2, 5, 8, 11							
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.				3, 6, 9, 12							
SPECIES	3	6	9	12	Collected? (V)	SPECIES	3	6	9	12	Collected? (V)
Acer rubrum	P	P	P	P		Habenaria repens					
Alternanthera philoxeroides						Hydrilla verticillata					
Andropogon sp.						Hydrocotyle sp.				P	
Azolla filiculoides (A. caroliniana)						Hygrophila polysperma					
Batcharis sp.						*Hypericum fasciculatum	P				
Bacopa caroliniana						*Hypericum hypericoides					
Bacopa monnieri						*Hypericum myrtifolium					
Bidens laevis		P	P			Ilex cassine					Asp
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	P				
Cephalanthus occidentalis	P	P	P	P		*Juncus scirpoides					
Ceratophyllum demersum						Lachnanthes caroliniana					
Chara sp.						Leersia hexandra		P			
Cladium jamaicense				P		Landoltia punctata (Spirodela punctata)					
Cliftonia monophylla						Lemna sp.					
Colocasia esculenta						Leucothoe racemosa (Eubotrys racemosa)	P	P	P		
*Commelina						Limnobia spongia					
Crinum americanum						Limnophila sessiliflora					
* Cyperus alternifolius (C. involucratus)						Liquidambar styraciflua				P	
Cyperus articulatus						*Ludwigia arcuata					
Cyperus haspan						*Ludwigia leptocarpa	P				
*Cyperus lecontei						*Ludwigia linearis					
*Cyperus polystachyos						*Ludwigia octovalvis					
*Cyperus odoratus						* Ludwigia peruviana					
*Cyperus surinamensis						*Ludwigia repens					
Cyrtilla racemiflora						*Ludwigia alternifolia <u>sofinae</u>	P	P	P	P	
Decodon verticillatus		P				Luziola fluitans (Hydrochloa carolinensis)	P	P	P	P	
Diodia virginiana						Lyonia lucida					
*Echinochloa crus-galli						Magnolia virginiana	P	P	P	P	
*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						Myrica					
Eleocharis equisetoides						Hydrilla					
Eleocharis interstincta						Symphoricarpos					
*Eriocaulon compressum											
*Eriocaulon decangulare											
Eupatorium capillifolium											
*Fuirena											
Fuirena scirpoidea	P	P	P	P							
Gordonia lasianthus											

FORM FD 9000-27: LAKE VEGETATION INDEX FIELD SHEET

Site:					Date:						
SPECIES	3	6	9	12	Collected? (✓)	SPECIES	3	6	9	12	Collected? (✓)
Myriophyllum aquaticum						Salix caroliniana		P			
*Myriophyllum heterophyllum						Salvinia minima					
*Myriophyllum laxum						Sambucus canadensis					
*Myriophyllum pinnatum						Sapium sebiferum					
Myriophyllum spicatum						Saururus cernuus					
*Najas filifolia						Schinus terebinthifolius					
*Najas guadalupensis		P	P	P		*Schoenoplectus californicus		P			
*Najas minor		P	P	P		*Schoenoplectus pungens					
Nelumbo lutea						*Schoenoplectus tabernaemontani (Scirpus validus)					
Nitella spp.						Scirpus cubensis (Oxycaryon cubense)					
Nuphar sp.		P	P	P		Scirpus cyperinus					
Nymphaea odorata		P	P	P		*Sesbania					
Nymphoides aquatica						Solidago sp.					
Nyssa sylvatica var. biflora		P	P	P		Sparganium americanum					
Orontium aquaticum		P	P	P		Spartina bakeri					
Osmunda cinnamomea						Spirodela polyrhiza					
Osmunda regalis						Taxodium sp.		P	P	P	
Panicum hemitomon		P	P	P		Thalia geniculata					
Panicum repens		P	P	P		Thelypteris palustris					
Paspalidium geminatum						Triadenum virginicum		P	P	P	
*Paspalum repens						Typha sp.		P	P	P	
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		P	P	P		*Utricularia purpurea					
Pistia stratioides		P	P	P		*Utricularia cornuta					
Pluchea sp.						*Utricularia radiata					
*Polygonum glabrum (densiflorum)						Vallisneria americana					
*Polygonum hydropiperoides						*Websteria confervoides					
*Polygonum punctatum						Wedelia trilobata (Sphagneticola trilobata)					
*Polygonum						Wolffiella spp.					
Pontederia cordata		P	P	P		Woodwardia virginica		P	P	P	
*Potamogeton diversifolius		P	P	P		Xyris sp.		P	P	P	
*Potamogeton illinoensis						Zizania aquatica					
*Potamogeton pusillus						Zizaniopsis milacea					
*Potamogeton pectinatus (Stuckenia pectinatus)											
Proserpinaca pectinata						Ros. hobbie					
*Rhexia						Vitis					
*Rhynchospora corniculata						Gesneria sp.		P	P	P	
*Rhynchospora inundata											
Rhynchospora tracyi											
Ricciocarpus natans											
Sabal palmetto		P									
Sacciolepis striata		P	P	P							
*Sagittaria filiformis											
*Sagittaria graminea											
*Sagittaria isoetiformis											
Sagittaria lancifolia											
Sagittaria latifolia											

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STATE OF FLORIDA, DEPARTMENT OF ENVIRONMENTAL PROTECTION
Lake Habitat Assessment Field Sheet

STORET STATION NUMBER: 21010011	DATE (M/D/Y) 7/26/16	LAKE NAME Ocean Pond		FIELD ID / NAME:	
ECO-REGION:	COUNTY: Union	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	Impounded, hydrology of system artificially controlled	
HYDROLOGY	☒	☐	☐	☐	
Color	Very clear, uncolored water (benthic sampling appropriate) ☐	Water somewhat tannin stained (benthic sampling appropriate) ☐	Dark, discolored water (water color 20 PCU or higher) ☒	Visibility extremely reduced due to high color ☐	
	Optimal	Suboptimal	Marginal	Poor	
Secchi ☐	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 ☐	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 ☐	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 ☐	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 ☐	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 ☐	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 ☐	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	11/3	COMMENTS:
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ANALYSIS DATE:	7/26/16	ANALYST:	[Signature]	SIGNATURE:	[Signature]
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DEP-SOP-001/01: Form FD 9000-3
PHYSICAL/CHEMICAL CHARACTERIZATION ELECTRONIC FIELD SHEET

EL-5

SAMPLE ID: _____ ORG ID: _____
 COUNTY: Union STORET #: 21010011
 DATE: 7/26/16 TIME: 1230
 SITE NAME: Ocean Pond Center SAMPLE COMPLETE? _____
 FIELD ID/NAME: _____ RECEIVING BODY OF WATER: _____

RIPARIAN ZONE / STREAM FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category):
 Forest/Natural ☐ silviculture ☐ Field/Pasture ☐ Agricultural ☐ Residential ☐ Commercial ☐ Industry ☐ Other (Specify) ☐

Local Watershed Erosion (select one): ☐ None ☒ Slight ☐ Moderate ☐ Heavy
 Local Watershed NPS Pollution: ☐ No evidence ☒ Slight ☐ Moderate ☐ Heavy

Width of Riparian Vegetation (m) on Each Buffer Side
 Left Bank: 7.8m Right Bank: 7.8m

High Water Mark: ☐ + ☐ = ☐
 (m) (above present water level) (present depth) (above bed)

Artificially Impounded: ☐ Yes ☐ No

Artificially ☒ No ☐ Mostly recovered, more sinuous
 Channelized: ☐ Some recovery ☐ Recent, severe

Canopy Cover %: ☒ Open ☐ Lightly Shaded (11-45%)
☐ Heavily Shaded ☐ Moderate Shaded (46-80%)

Typical Width (m) Depth (m)/Velocity (m/sec) Transect
 _____ m wide
 _____ m/s _____ m/s _____ m/s
 _____ m deep _____ m deep _____ m deep

SEDIMENT / SUBSTRATE

Sediment Oils
☒ Absent ☐ Slight
☐ Moderate ☐ Profuse

Sediment Odors
☒ Normal ☐ Sewage ☐ Petroleum
☐ Chemical ☐ Anaerobic
☐ Other (Specify): _____

Sediment Deposition
☐ Sludge Sand Smothering: ☐ None ☐ Slight ☐ Moderate ☐ Severe
☐ Silt Smothering: ☐ None ☐ Slight ☐ Moderate ☐ Severe
☐ Other (Specify): _____

SUBSTRATE TYPE
 Assessment Tool: ☐ SCI ☐ BioRecon
☐ LCI ☒ ILM ☐ INVERT ☐ PERI
 % Coverage # Times Sampled # Times Sampled

Woody Debris (Snags) ☐ ☐ ☐
 Undercut Banks / Roots ☐ ☐ ☐
 Leaf Packs or Mat ☐ ☐ ☐
 Aquatic Vegetation ☐ ☐ ☐
 Rock or Shell Rubble.. ☐ ☐ ☐
 Sand..... ☐ ☐ ☐
 Mud / Muck / Silt ☐ ☐ ☐
 Other ☐ ☐ ☐
 Other ☐ ☐ ☐

WATER QUALITY
 Depth (M) Temp. (°C) pH (SU) D.O. (MG/L) Cond. (UMHO/CM) Salinity (PPT) SECCHI (M)
 Top: 0.3 32.6 5.60 7.3 45 0.02 1.0
 Mid-Depth: ☐ ☐ ☐ ☐ ☐ ☐ ☐
 Bottom: 2.5 ☐ ☐ ☐ ☐ ☐ ☐
☐ VOB

Water Surface Oils: ☒ None ☐ Sheen ☐ Globbs ☐ Slick
Water Odors: ☒ Normal ☐ Sewage ☐ Petroleum ☐ Chemical
☐ Other (Specify): _____

Water Sample Taken? ☒ Yes ☐ No
 Algae Sample Taken? ☐ Yes ☐ No

SYSTEM TYPE ☐ Stream ☒ Lake
☐ Wetland ☐ Estuary
☐ Other (Specify): _____

Clarity
☐ Clear ☒ Slightly Turbid
☐ Turbid ☐ Opaque

Color
☒ Tannic ☐ Green (Algae)
☐ Clear ☐ Other (Specify): _____

WEATHER CONDITIONS / NOTES:
☐ The antecedent hydrologic conditions have been met to my best knowledge.
 Water samples preserved? ☐ Yes ☐ pH<2 ☐ No Algae samples preserved? ☐ Yes ☐ No

ABUNDANCE
 Absent Rare Common Abundant
 Periphyton: ☐ ☒ ☐ ☐
 Fish: ☐ ☐ ☒ ☐
 Aquatic Macrophytes: ☐ ☐ ☒ ☐
 Iron/Sulfur Bacteria: ☐ ☒ ☐ ☐

SAMPLING TEAM: _____ **SIGNATURE:** [Signature] **DATE:** 7/26/16