



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STRATEGIC MONITORING PLAN FIELD SHEET

January 2020

Meter Passed End

of Day CCV

☒ Yes

☐ No

WIN Station Name: Lake Apopka @ Center

Date: 8/19/2021

WIN/Field ID: G1CE0112

WBID: 2835D

ENR: -

Latitude: 28.6213

County: ORANGE

Org ID: 21FLCEN

Longitude: -81.62

Receiving Body of Water: Ocklawaha

RQ: 2021-08-16-59

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

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: VISIT ID: 83139 Macrophyte ID: 11954						LIMS: 2271098					
Notes: Sampled via airboat with FWC											

Duplicate Sample

Time Zone: EST	Time:	Field ID:	(WIN ID_DUP)
WIN DMT Activity ID:			

Blank

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

LIMS EVENT ID: CEN-DIST-2021-08-20-03	WIN Import ID: 28935
Enter Field Parameters, Verify Station ID In LIMS DMT: EB 9/1/21	QC Station ID, Field Parameters In LIMS DMT: VLS 10/06/21
(Initials/Date)	(Initials/Date)
Scan/Save Field Sheets KWM 10/6/21	Migrate Data to WIN: KWM 10/6/21
(Initials/Date)	(Initials/Date)
Verify Data In WIN:	(Initials/Date)



RQ-2021-08-16-59

Customer: WQAP

Project ID: SMP

Collected By: Terry Riordan, Victoria Schwartz

Field Report Prepared By: Terry Riordan

Sampling Agency: FDEP

Place Label Here

WIN ID/Field ID:



G1CE0112

Location: Lake Apopka @ 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)		
	1245 EST	8.71	121.3	33.1	8.78	0.3	0.4 ☐ VOB (S)	1.9	338.9	0.16		
8/19/2021												
	1250 EST	8.46	111.7	29.7	8.73	1.4			328.7	0.15		
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				☒ Ice ☒ H2SO4*		☒ <2	1	A		
		Lot #	SA1105060		Exp:	4/30/22						
Metals (P-500ML)		☐ W-ICPMS ☐ W-ICP ☐ W-HARD				☐ Ice ☐ HNO3*		☐ <2				
		Lot #			Exp:							
Filtered Nutrients (P125ML)		☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter				☒ Ice			1	A		
		Filter Lot #	17135566									
		Syringe Lot #	1112035									
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 Lot #			☐ Formalin						
Periphyton (PT-50ML)		☐ ALGAE-ID				☐ Ice						
Microbiology (Contract Lab Bottle)		☐ E Coli ☐ F Coli ☐ Enterococci				☐ Ice						
Molecular (QPCR-P-500ML)		☐ PCR-HF183 ☐ PCR-BacR ☐ PCR-DG3				☐ Ice						
		☐ PCR-GULL2 ☐ PCR-GFD ☐				☐ Ice						
Tracers (BG-500ML)		☒ W-E8321-DI ☒ W-E8321-MS				☒ Ice			1	A		
Pesticides (BG-500ML) (BG-1L)		☐ W-E8321-DI	☐ WE8321-MS	☐ W-PSNP-TQ	☒ W-CT-CL-R	☒ Ice			4	A		
		☒ W-PCL-TQ-R	W-CARB-AA (5 ml of MCAA** Buffer Solution)			☐ Ice						
Phytoplankton/Periphyton					DTY-QN-C	☐ Ice						
					PKD-QN-BV							
Name: Terry Riordan Victoria Schwartz					Signature: Victoria Schwartz				Date: 8/19/21			

*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: 28.6213
 COUNTY: Orange STORE # G1CE0112 LONGITUDE: -81.62
 DATE: 8/19/21 TIME: _____ SAMPLING AGENCY: 21PLEN
 SITE NAME: Lake Apopka @ Center WBID: 2835D
 FIELD ID/NAME: G1CE0112 LAKE SIZE: Large RQ: 2021-08-16-59

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>45</u>				<u>55</u>										
Local Watershed Erosion (select one): ☐ None ☐ Slight ☒ Moderate ☐ Heavy								Artificially Impounded		Land Use Source & Year:				
Local Watershed NPS Pollution: ☐ No evidence ☐ Slight ☒ Moderate ☐ Heavy								☒ Yes ☒ No						
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>18</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>15</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

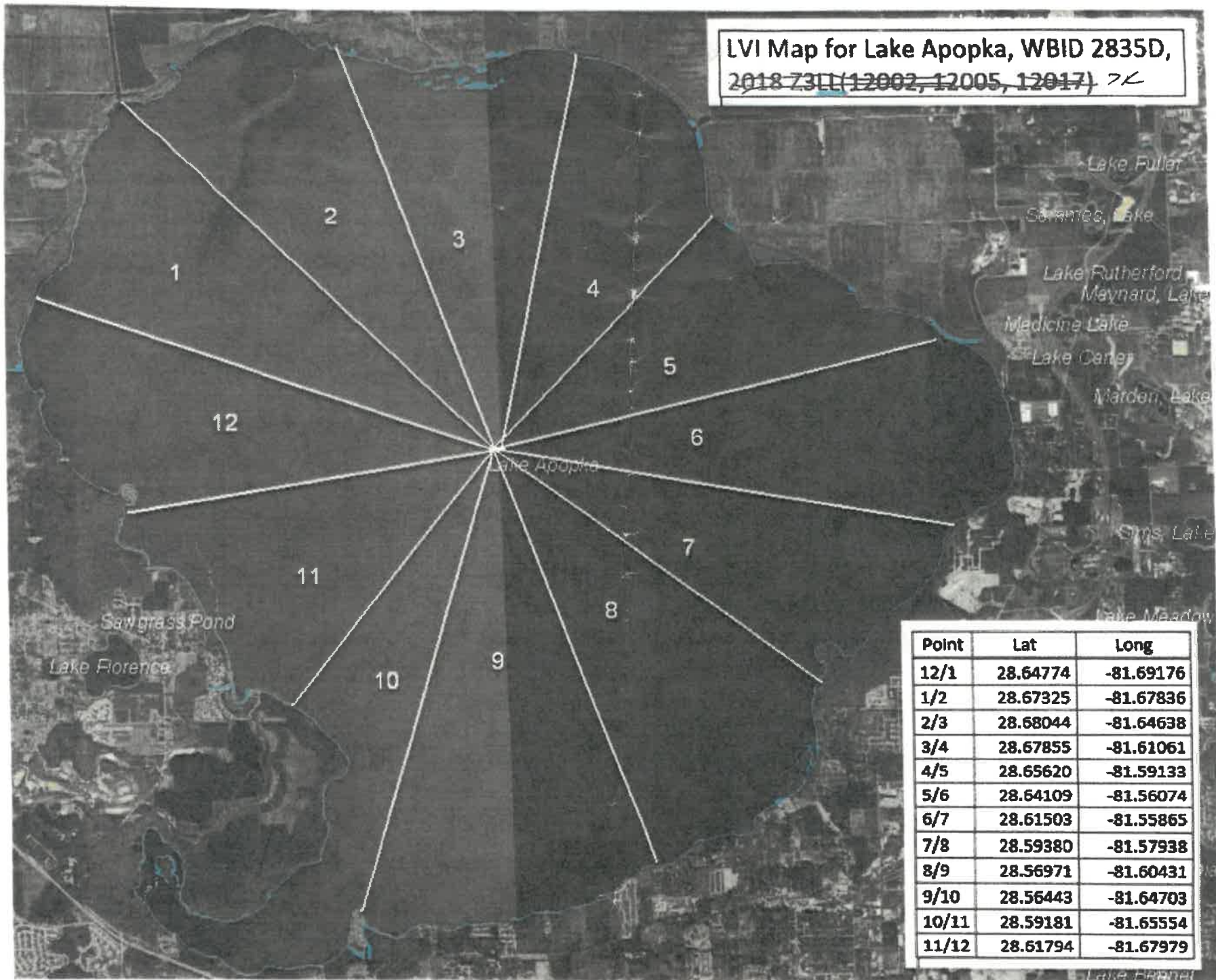
Water: Nutrient Sample Taken? ☒ Yes ☐ No Preserved? ☒ Yes ☐ No pH < 2 ☐ No Color Sample Taken? ☒ Yes ☐ No Lot # <u>SAN105060</u> Exp. Date: <u>4/30/22</u> Alkalinity Sample Taken? ☒ Yes ☐ No Water Level ☐ Low ☒ Normal ☐ High								Water Odors: ☒ Normal ☐ Sewage ☐ Petroleum ☐ Other _____			
Meter Readings: Top: <u>0.3</u> <u>33.1</u> <u>8.78</u> <u>8.71</u> <u>121.3</u> <u>338.9</u> <u>0.16</u> Mid-Depth: _____ Bottom: <u>1.4</u> <u>29.7</u> <u>8.73</u> <u>8.46</u> <u>111.7</u> <u>328.7</u> <u>0.15</u> Meter ID: <u>Craw Daddy</u>								Water Surface Oils: ☒ None ☐ Sheen/Slick ☐ Glob ☐ Other _____			
Sediment Type: (may check more than one) ☐ Sandy ☐ Organic fibrous (peaty, CPOM) ☐ Vegetated ☐ Sand/Silt ☐ Organic smooth (muck) ☐ Other (Specify): _____								Clarity: ☐ Clear ☒ Turbid ☐ Slightly Turbid Color: ☐ Clear ☐ Tannic ☒ Green			
Biological Communities: LVI Conducted? ☒ Yes ☐ No Phytoplankton Sample Taken? ☐ Yes ☒ No Sample Preserved? <u>N/A</u> ☐ 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 ☐ ☐ ☒ ☐			
Weather Conditions: <u>Sunny</u> <u>Sampled w/ FWC + airboat</u>								Additional Notes:			
SAMPLING TEAM: <u>Terry Riordan + Victoria Schwartz</u>								SIGNATURE: <u>[Signature]</u> DATE: <u>8/19/21</u>			

DEP FORM FD 9000-27 LAKE VEGETATION INDEX FIELD SHEET

Waterbody: <u>Lake Apopka (WBID 2835D)</u>		County: <u>Orange</u>		Date: <u>8/19/21</u>							
Analyst: <u>T. Riordan, V. Schwartz</u>		Signature: <u>[Signature]</u>		STORET: <u>G1CE0112</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	/	/	D/E		
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 <u>sp</u>			/		✓	Leersia hexandra					
Crinum americanum	/		/	/		Landoltia punctata (Spirodela punctata)					
*Cyperus alternifolius (C. involucratus)						Lemna sp.	/	/	/	/	
Cyperus articulatus						Leucothoe racemosa (Eubotrys racemosa)					
Cyperus haspan			/			Limnium 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 <u>baldwinii</u>	/	/	/	/		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: LAKE Apopka						Date: 8/19/21					
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 gibba (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 (Sphagneticola trilobata)					
*Polygonum See.				/		Wolffiella spp.					
Pontederia cordata	/	/	/	/		Woodwardia virginica					
*Potamogeton diversifolius						Xyris sp.					
*Potamogeton illinoensis						Zizania aquatica					
*Potamogeton pusillus						Zizaniopsis milacea					
*Potamogeton pectinatus (Stuckenia pectinatus)						Cicuta maculata	/		/	/	
Proserpinaca pectinata						Kosteletzkia pentacarpa	/	/	/	/	
*Rhaxia						Musa			/	/	
*Rhynchospora comiculata						Cyperus papyrus			/	/	
*Rhynchospora inundata						Conchocarpus purpureus			/	/	/
Rhynchospora nitens						Eupatorium serotinum	/	/	/	/	
Ricciocarpus natans						Rhynchospora sp.	/		/	/	
Sabal palmetto	/		/	/		Serenoa repens				/	/
Sacciolepis striata	/	/	/	/		Xanthosoma sagittifolium	/	/	/	/	
*Sagittaria filiformis						Symphytichum carolinianum	/			/	
*Sagittaria graminea						Setaria magna	/				
*Sagittaria isoetiformis						Erechtites hieracifolius	/	/	/	/	
Sagittaria lancifolia	/	/	/	/		Parthenocissus quinquefolia		/	/	/	
Sagittaria latifolia	/	/	/	/		Acrostichum sp.	/	/	/	/	
						Ambrosia artemisiifolia		/	/	/	
Ampelopsis arborea	/	/	/	/		Cuscuta sp.		/	/	/	



Lake Apopka @ Center 28.62133 -81.62483