

**FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION**

STRATEGIC MONITORING PLAN Field Sheet

July 2022

Meter
Passed End
of Day CCV☒ Yes / ☐ No

WIN Station Name:	Queens Mirror Lake @ Center				Sample Date:	9/20/2022	
WIN / Field ID:	G2CE0214	ORG ID:	21FLCEN	ENR:	-		
County:	Seminole	WBID:	2994V1	LAKE			
Receiving Body of Water:	-				RQ-	2022-08-15-21	

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

Sampling Equipment			
x	Sample Container		Carboy
	Dipper		Van Dorn
x	Syringe		Pole
Syringe Lot# 2090604		Filter Lot# 17413308	
Secchi Equipment ID:		Knothead	
Collection Method			
	Wading	x	Canoe/Kayak
	From Shore		Electric Motor
			Gasoline Motor
Depth Measured With		Secchi	

Water Level:	Normal
Flow:	NA
Matrix:	Fresh
Tide Stage:	
High Tide:	
Low Tide:	
Photos:	Yes
Meter ID:	Craw Daddy

Time Zone	Time	Total Depth (m)	Sample Depth (m)	DO (mg/L)	DO (%SAT)	Temp. (°C)	pH	Secchi Disk (m)	Sp COND (µmhos/cm)	Salinity (PPTth)
EST	1457	2.8	0.3	9.64	127.8	30	7.14	0.6	136.6	0.06
	1459		2	0.53	6.7	26.5	6.49		133.3	0.06
	1500		2.3	0.34	4.2	26.4	6.33		134.5	0.06

Biological Samples Collected:	LVI									
SBIO Visit ID:	85755	HA ID:		RPS ID:		Macrophyte ID:	12311	LIMS ID:	2358198	

Parameter Suite	Parameter Methods (LIMS Test Codes)			Preservation			
	Type	Lot#	Expiration Date	pH Check			
Microbiology							
Chlorophyll	CHLSUITE-W			ICE			
Physical/Aggregate Nutrients	ALKALINITY, TURBIDITY, W-F, W-TSS			ICE			
Filtered Nutrients	W-CL-IC, W-COLOR, W-SO4-IC, W-TDS			ICE			
Acid Preserved Nutrients	W-PO4-F Field Filtered 0.45 µm Filter			ICE			
Metals	W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP			ICE	H2SO4*	132275	12/07/2022
Organics (LC)	W-ICPMS W-ICP W-HARD			ICE	HNO3**	NA1105100	06/07/2023
Macroinvertebrates	W-E8321-DI W-E8321-MS						
Organics (GC)	W-PSNP-TQ W-TR-SQ-R			Ice	*2.0 ml of H2SO4 Used Unless Noted Otherwise **2.0 ml of HNO3 Used Unless Noted Otherwise		
Molecular							
Periphyton							
Phytoplankton							
BOD							
Other(s)							
Field Comments:	Overcast. Hydrilla will be treated this week						
Comments on COC:							
Relinquish Date:	09/20/2022	Signature:					

LIMS EVENT ID: CEN-DIST-2022-09-21-01

WIN Import ID: 36904

Enter Field Parameters, Verify Station ID In LIMS DMT: KWM 11/9/22

QC Station ID, Field Parameters In LIMS DMT: VLS 11/22/22

Save Field Sheets on Network: KWM 11/30/22 (Initials/Date)

Migrate Data to WIN: KWM 11/30/22 (Initials/Date)

(Initials/Date)

(Initials/Date)

DEP FORM FD 9000-31: LAKE OBSERVATION FIELD SHEET

SAMPLE ID: _____ MACROPHYTE ID: _____ LATITUDE: 28.66247
 COUNTY: Seminole STORET #: G2CE0214 LONGITUDE: -81.32301
 DATE: 9/20/22 TIME: 1457 SAMPLING AGENCY: FDEP, CEROC
 SITE NAME: Queen's Mirror WBID: 2994V1
 FIELD ID/NAME: Queen's Mirror Lake @ Center LAKE SIZE: 12.4 ac RQ: 2022-08-15-21

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)			LDI: _____											
<u>40</u>				<u>50</u>			<u>10 Golf course</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>10</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>8</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>4</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>132275</u> Exp. Date: <u>12/07/22</u> 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>30.0</u> <u>7.14</u> <u>9.64</u> <u>127.8</u> <u>136.6</u> <u>0.06</u> Mid-Depth: <u>2.0</u> <u>26.5</u> <u>6.49</u> <u>0.53</u> <u>6.7</u> <u>133.3</u> <u>0.06</u> Bottom: <u>2.3</u> <u>26.4</u> <u>6.33</u> <u>0.34</u> <u>4.2</u> <u>134.5</u> <u>0.06</u>								Water Surface Oils: ☒ None ☐ Sheen/Slick ☐ Glob ☐ Other _____							
Meter ID: <u>Craw Daddy</u>								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>0.6</u> Total Station Depth (M) <u>2.8</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: <u>- most lawns mowed to water</u> <u>- Hydrilla will be treated Thursday!</u> <u>(9/22/22)</u>							

Weather Conditions:
80's-90's Heavy overcast afternoon T-storms

SAMPLING TEAM: Terry Riordan, Victoria Schwartz **SIGNATURE:** [Signature] **DATE:** 9/20/22

DEP FORM FD 9000-27 LAKE VEGETATION INDEX FIELD SHEET

Waterbody: <u>Queens Mirror</u>		County: <u>Seminole</u>		Date: <u>9/20/22</u>							
Analyst: <u>Terry Riordan / Victoria Schwartz</u>		Signature: <u>[Signature]</u>		STORET: <u>G2CE0214</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 <u>2, 5, 8, 11</u> 3, 6, 9, 12							
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	/	/	/	/	
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	/	/	/	/		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					
Cyrtia 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	/	/	/	/		Magnolia virginiana	/	/	/	/	
Eleocharis cellulosa	/	/	/	/		Mayaca fluviatilis					
*Eleocharis elongata	/	/	/	/		Melaleuca quinquenervia					
Eleocharis equisetoides	/	/	/	/		Micranthemum glomeratum					
Eleocharis interstincta	/	/	/	/		Micranthemum umbrosum	/	/	/	/	
Eleocharis submersed viviparus	/	/	/	/		Mikania scandens	/	/	/	/	
*Eriocaulon compressum	/	/	/	/		Mimosa pigra	/	/	/	/	
*Eriocaulon decangulare	/	/	/	/		Myrica cerifera	/	/	/	/	
Eupatorium capillifolium											
Fraxinus											

no dominant sec. 2

FORM FD 9000-27: LAKE VEGETATION INDEX FIELD SHEET

Site: <u>Queens Minor</u>					Date: <u>9/20/22</u>						
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						Wolffiella spp.					
Pontederia cordata						Woodwardia virginica					
*Potamogeton diversifolius						Xyris sp.					
*Potamogeton illinoensis						Zizania aquatica					
*Potamogeton pusillus						Zizaniopsis milacea					
*Potamogeton pectinatus (Stuckenia pectinatus)											
Proserpinaca pectinata											
*Rhexia											
*Rhynchospora comiculata											
*Rhynchospora inundata											
Rhynchospora nitens											
Ricciocarpus natans											
Sabal palmetto											
Sacciolepis striata											
*Sagittaria filiformis											
*Sagittaria graminea											
*Sagittaria isoetiformis											
Sagittaria lancifolia											
Sagittaria latifolia											

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LVI Map for Queen's Mirror Lake, WBID 2994V1

