

**FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION**

REFERENCE LAKES Field Sheet

July 2022

Meter
Passed End
of Day CCV
Yes / No

WIN Station Name:	Lake Trafford				Sample Date:	9/12/2022	
WIN / Field ID:	28030024	ORG ID:	21FLFTM	ENR:	-		
County:	Collier	WBID:	3259W	LAKE	3F		
Receiving Body of Water:	-				RQ-	2022-09-12-16	

Sampling Team Members	WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
Thomas Baker	x		x		
William Mullen		x		x	x

Sampling Equipment			
☒ Sample Container		Carboy	
Dipper		Van Dorn	
Syringe		Pole	
Syringe Lot#	1363442	Filter Lot#	17347262
Secchi Equipment ID:	3312A		
Collection Method			
Wading		Canoe/Kayak	
From Shore		Electric Motor	
		☒ Gasoline Motor	
Depth Measured With	Sonar		

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

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	1040	3	0.3	8.56	113.5	30.1	8.36	0.5	283.8	0.13
	1042		2	6.23	82	29.6	8.15		287	0.13
	1044		2.5	6	79.1	29.7	8.15		287.3	0.13

Biological Samples Collected:

LVI

SBIO Visit ID:**HA ID:****RPS ID:****Macrophyte ID:****LIMS Sample ID Entered
Into The Macrophyte Module:**

Parameter Suite	Parameter Methods (LIMS Test Codes)			Preservation			
				Type	Lot#	Expiration Date	pH Check
Microbiology							
Chlorophyll	CHLSUITE-W			ICE			
Physical/Aggregate	ALKALINITY, TURBIDITY, W-F, W-TSS			ICE			
Nutrients	W-CL-IC, W-COLOR, W-SO4-IC, W-TDS			ICE			
Filtered Nutrients	W-PO4-F	Field Filtered 0.45 µm Filter		ICE			
Acid Preserved Nutrients	W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP			ICE	H2SO4*	SA2145160	06/02/23
Metals	W-ICPMS	W-ICP	W-HARD	ICE	HNO3**	NA1105100	06/07/2023
Organics (LC)							
Macroinvertebrates							
Organics (GC)					*2.0 ml of H2SO4 Used Unless Noted Otherwise **2.0 ml of HNO3 Used Unless Noted Otherwise		
Molecular							
Periphyton							
Phytoplankton	DTY-QN-C	PKD-QN-BV		Ice			
BOD							
Other(s)							
Field Comments:							
Comments on COC:	Please log in PKD-QN-BV & DTY-QN-C under a separate event with priority 12, Bottle Group - A.						
Relinquish Date:	09/12/2022	Signature:					

LIMS EVENT ID: _____ WIN Import ID: _____

Enter Field Parameters, Verify Station ID In LIMS DMT: _____

(Initials/Date)

QC Station ID, Field Parameters In LIMS DMT: _____

(Initials/Date)

Save Field Sheets on Network: _____

(Initials/Date)

Migrate Data to WIN: _____

(Initials/Date)

SAMPLE RQ: 2022-09-12-16 MACROPHYTE ID: 12268 LATITUDE: 26.42361
 COUNTY: Collier STORET #: 28030024 LONGITUDE: -81.4947
 DATE: 09/12/22 TIME: SAMPLING AGENCY: SROC
 WATERBODY NAME: Lake Trafford WBID: 32594
 RANDOM SITE ID: 28030024 LAKE SIZE (CIRCLE ONE): LARGE / SMALL

WATERSHED / LAKESIDE FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category – from GIS) : Forest/Natural <u>60</u> Silviculture <u>~</u> Field/Pasture <u>15</u> Agricultural <u>20</u> Residential <u>5</u> Commercial <u>~</u> Industrial <u>~</u> Other (Specify) <u>~</u>				LANDSCAPE DEVELOPMENT INTENSITY (100 m buffer) LDI: <u> </u>	
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>15</u>	Stormwater enters system via sheet flow over non-cultivated and/or natural vegetation 20 19 18 17 16	Some direct stormwater inputs (ditches, pipes, cultivated vegetation < 10%) but good BMPs in place 15 14 13 12 11	Moderate direct inputs of stormwater (ditches, pipes, cultivated vegetation 11%-50%) but few BMPs in place 10 9 8 7 6	Much direct input of stormwater (ditches, pipes, cultivated vegetation > 51%) and no or ineffective BMPs in place 5 4 3 2 1	
LAKESIDE ALTERATIONS <u>16</u>	Very few man-made structures, roads, or other disturbance adjacent to lake (<10% lakeside affected) 20 19 18 17 16	Moderate disturbance visible - structures, roads or other (10%-49% lakeside affected) 15 14 13 12 11	Many structures, roads or other human disturbance visible (50%-70% lakeside affected) 10 9 8 7 6	Highly developed or disturbed (>70% of lakeside affected) 5 4 3 2 1	
BUFFER ZONE <u>20</u>	Expected native vegetation between uplands and littoral zone, greater than 90% of shore with >18 m buffer 20 19 18 17 16	89%-51% of shoreline with >18m buffer or >75% with 10m to 18m buffer 15 14 13 12 11	50%-30% of shoreline with >18m buffer or 50%-74% with 10m to 18m buffer 10 9 8 7 6	< 29% of shoreline with >18m buffer 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>SA245160</u> Exp. Date: <u>06/02/23</u> 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: <table border="1"> <thead> <tr> <th></th> <th>Depth (M)</th> <th>Temp. (°C)</th> <th>pH (SU)</th> <th>D.O. (MG/L)</th> <th>D.O. Sat. (%)</th> <th>Cond. (UMHO/CM)</th> <th>Salinity (PPT)</th> </tr> </thead> <tbody> <tr> <td>Top:</td> <td>0.3</td> <td>30.1</td> <td>8.36</td> <td>113.5</td> <td>113.5</td> <td>283.8</td> <td>0.13</td> </tr> <tr> <td>Mid-Depth:</td> <td>2</td> <td>29.6</td> <td>8.15</td> <td>82</td> <td>82</td> <td>287.0</td> <td>0.13</td> </tr> <tr> <td>Bottom:</td> <td>2.5</td> <td>29.7</td> <td>8.15</td> <td>79.1</td> <td>79.1</td> <td>287.3</td> <td>0.13</td> </tr> </tbody> </table>							Depth (M)	Temp. (°C)	pH (SU)	D.O. (MG/L)	D.O. Sat. (%)	Cond. (UMHO/CM)	Salinity (PPT)	Top:	0.3	30.1	8.36	113.5	113.5	283.8	0.13	Mid-Depth:	2	29.6	8.15	82	82	287.0	0.13	Bottom:	2.5	29.7	8.15	79.1	79.1	287.3	0.13	Clarity: ☐ Clear ☒ Turbid ☐ Slightly Turbid Color: ☐ Clear ☐ Tannic ☒ Green SECCHI (M) <u>0.5</u> Total Station Depth (M) <u>3.0</u> VOB ☐					
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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: <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	☐	☐	☐	☒	Additional Notes:						
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Exotic Apple Snails	☐	☐	☐	☒																																							
Weather Conditions: <u>Sunny</u>																																											
SAMPLING TEAM: <u>William Muller, Thoree Baker</u>						SIGNATURE: <u>Thoree Baker</u>			DATE: <u>09/12/22</u>																																		

Visit ID: 85477

MacroID: 12268 Lims: 2355708, 2355711

DEP FORM FD 9000-27 LAKE VEGETATION INDEX FIELD SHEET

Waterbody: <u>Lake Trafford</u>		County: <u>Collier</u>		Date: <u>9/12/22</u>							
Analyst: <u>Thomas Baker</u>		Signature: <u>Thomas Baker</u>		STORET: <u>28030024</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						Habenaria repens					
Alternanthera philoxeroides	X	X	X	X		Hydrilla verticillata	X				
Andropogon sp.						Hydrocotyle sp.	X	X	X	X	
Azolla filiculoides (A. caroliniana)						Hygrophila polysperma					
Baccharis sp.						*Hypericum fasciculatum					
Bacopa caroliniana						*Hypericum hypericoides					
Bacopa monnieri						*Hypericum myrtifolium					
Bidens laevis						Ilex cassine					
Bidens mitis						Ipomoea aquatica					
Blechnum serrulatum	X					Ipomoea sagittata					
Boehmeria cylindrica						Itea virginica					
Brasenia schreberi						Juncus effusus					
Cabomba caroliniana						*Juncus marginatus					
Casuarina equisetifolia						*Juncus megacephalus					
Centella asiatica						Juncus repens					
Cephalanthus occidentalis	X	X	X	X		*Juncus scirpoides					
Ceratophyllum demersum						Lachnolobos caroliniana					
Chara sp.						Leersia hexandra					
Cladium jamaicense						Landoltia punctata (Spirodela punctata)					
Cliftonia monophylla						Lemna sp.					
Colocasia esculenta						Leucothoe racemosa (Eubotrys racemosa)					
*Commelina						Limnium spongia					
Crinum americanum						Limnophila sessiliflora					
*Cyperus alternifolius (C. involucratus)						Liquidambar styraciflua					
Cyperus articulatus						*Ludwigia arcuata					
Cyperus haspan						*Ludwigia leptocarpa		X			
*Cyperus lecontei						*Ludwigia linearis					
*Cyperus polystachyos						*Ludwigia octovalvis	X				
*Cyperus odoratus						*Ludwigia peruviana	X	X			
*Cyperus surinamensis						*Ludwigia repens					
Cyrtilla racemiflora						*Ludwigia					
Decodon verticillatus						Luziola fluitans (Hydrochloa carolinensis)					
Diodia virginiana						Lyonia lucida					
*Echinochloa crus-galli						Magnolia virginiana					
*Echinochloa muricatum						Mayaca fluviatilis					
Echinochloa walteri						Melaleuca quinquenervia					
Eclipta prostrata (E. alba)						Micranthemum glomeratum					
Egeria densa						Micranthemum umbrosum					
Eichhornia crassipes	X	X	X	X		Mikania scandens	X				X
*Eleocharis baldwinii						Mimosa pigra					
*Eleocharis						Myrica cerifera					
Eleocharis cellulosa						<u>Andropogon Glaberrimus</u>	X	X	X	X	
Eleocharis equisetoides						<u>Mibiccas Granitosa</u>		X	X	X	
Eleocharis interstincta						<u>Vitis</u>	X		X		
*Eriocaulon compressum						Andropogon red plant					
*Eriocaulon decangulare						<u>Sagittaria</u>	X				
Eupatorium capillifolium	X			X		<u>Acrostichum danerifolium</u>					X
*Fuirena						<u>Cow Pea</u>	X				
Fuirena scirpoidea						<u>Bidens Alba</u>	X				
Gordonia lasianthus						<u>Leuca Weed</u>	X				

FORM FD 9000-27: LAKE VEGETATION INDEX FIELD SHEET

Site: <u>Lake Trafford</u>						Date: <u>09/12/22</u>					
						4 1 2 3					
SPECIES	2	5	8	11	Collected? (✓)	SPECIES	2	5	8	11	Collected? (✓)
Myriophyllum aquaticum						Salix caroliniana	X	X		X	
*Myriophyllum heterophyllum						Salvinia minima					
*Myriophyllum laxum						Sambucus canadensis					
*Myriophyllum pinnatum						Sapium sebiferum					
Myriophyllum spicatum						Saururus cernuus					
*Najas filifolia						Schinus terebinthifolius					
*Najas guadalupensis						*Schoenoplectus californicus	X	X	X		
*Najas minor						*Schoenoplectus pungens					
Nelumbo lutea						*Schoenoplectus tabernaemontani (Scirpus validus)					
Nitella spp.						Scirpus cubensis (Oxycaryon cubense)					
Nuphar sp.						Scirpus cyperinus					
Nymphaea odorata						*Sesbania				X	
Nymphoides aquatica		X		X		Solidago sp.					
Nyssa sylvatica var. biflora						Sparganium americanum					
Orontium aquaticum						Spartina bakeri					
Osmunda cinnamomea						Spirodela polyrhiza					
Osmunda regalis						Taxodium sp.	X				
Panicum hemitomon	X	X	X	X		Thalia geniculata	X	X	X	X	
Panicum repens	X			X		Thelypteris palustris					
Paspalidium geminatum	X	X	X	X		Triadenum virginicum					
*Paspalum repens						Typha sp.	X	X	X	X	
Paspalum urvillei						Urochloa mutica (Brachiaria mutica)					
Peltandra sp.						*Utricularia gibba (U. biflora)					
Persea sp.						*Utricularia floridana					
Pennisetum purpureum						*Utricularia foliosa					
Phragmites australis	X	X	X	X		*Utricularia inflata					
Pinus elliotii						*Utricularia purpurea					
Pistia stratioides		X		X		*Utricularia cornuta					
Pluchea sp.						*Utricularia radiata					
*Polygonum glabrum (densiflorum)	X	X		X		Vallisneria americana					
*Polygonum hydropiperoides	X	X				*Websteria confervoides					
*Polygonum punctatum						Wedelia trilobata (Sphagneticola trilobata)					
*Polygonum						Wolffiella spp.					
Pontederia cordata	X	X	X	X		Woodwardia virginica					
*Potamogeton diversifolius						Xyris sp.					
*Potamogeton illinoensis						Zizania aquatica					
*Potamogeton pusillus						Zizaniopsis milacea					
*Potamogeton pectinatus (Stuckenia pectinatus)						Utricularia	X	X	X	X	
Proserpinaca pectinata						Utricularia	X				
*Rhexia						Raspulm TB					
*Rhynchospora corniculata						Phytolacca americana				X	
*Rhynchospora inundata											
Rhynchospora tracyi											
Ricciocarpus natans											
Sabal palmetto	X	X	X	X							
Sacciolepis striata											
*Sagittaria filiformis											
*Sagittaria graminea											
*Sagittaria isoetiformis											
Sagittaria lancifolia	X	X	X	X							
Sagittaria latifolia		X									

3 p for 1st
2 p for 2nd
3 p for 3rd 4 p for 4th