



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

STRATEGIC MONITORING PLAN FIELD SHEET

January 2022

Meter Passed End
of Day CCV
Yes / No

WIN Station Name: Lake Denton

Date: 8/24/2022

WIN/Field ID: G4SD0180

WBID: 1842B

ENR: -

Latitude: 27.5563

County: Highlands

Org ID: 21FLFTM

Longitude: -81.48943

Receiving Body of Water: Arbuckle Creek

RQ: 2022-08-22-40

Sampling Team Members		WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
☒	Nicole Reistad		x		x	x
☒	William Mullen	x		x		
☐						
☐						

Sampling Equipment	
☒ Sample Container	☐ Carboy
☐ Dipper	☐ Van Dorn
☐ Syringe	☐ Pole
Depth measured with: Secchi	
Secchi Equipment ID: 3312A	
Collection Method	
☐ Wading	☐ Canoe/Kayak
☐ From Shore	☐ Electric Motor
☐ Other	☒ Gasoline Motor

Water Level: ☒ Normal ☐ Low ☐ High ☐ Dry ☐ Pooled ☐ Flooded						Meter ID# PRESIDENT CAMACHO	
Photos: YES		Flow: NA		Tide:		Tide Times: High: Low:	
Biological Samples Collected:		☐ None	☐ HA	☐ SCI	☐ RPS	☐ Algae ID	☐ LVS ☒ LVI Other:
SBIO ID Numbers:							
Notes:							

Duplicate Sample

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

Blank

Time Zone: EST	Time: 1350	Field ID: FB_08242022	(Blank Type_DDMMYYYY)
DI Source: Lab		Location: Fort Myers	
DI Type: Field Blank		Equipment ID:	
DI Container (Name/ID): Moto Moto		DI Container Type: Carboy	

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)

Scan/Save Field Sheets (Initials/Date) Migrate Data to WIN: (Initials/Date) Verify Data In WIN: (Initials/Date)



RQ-2022-08-22-40
Customer: SO-DIST
Project ID: STRATEGIC MONITORING PLAN

Collected By: Nicole Reistad, William Mullen
Field Report Prepared By: Nicole Reistad
Sampling Agency: FDEP

Place Label Here WIN ID/Field ID: G4SD0180 Location: Lake Denton						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 _h)
	1035 EST	7.92	107.5	31.5	8.17	0.3	6 ☐ VOB (S)	14.1	281.1	0.13
8/24/2022	1037	7.97	108	31.3	8.21	2	Central Lab please use top row for login purposes		281	0.13
	1040 EST	7.64	103	31.1	8.09	9.8			280.5	0.13
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 #	SA2145160		Exp:	06/02/23				
Metals (P-500ML)		☒ W-ICPMS ☒ W-ICP ☒ W-HARD				☒ Ice ☒ HNO3*		☒ <2	1	A
		Lot #	NA1286110		Exp:	11/16/22				
Filtered Nutrients (P125ML)		☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter				☒ Ice			1	A
		Filter Lot #	17441866		Syringe Lot#	1363442				
Biochemical Oxygen Demand (BP-1L)		BODTEST OV-BODUNIN				ICE				
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-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 ☐ Contract Lab				☐ Ice				
Molecular (QPCR-P-500ML)		☐ PCR-HF183 ☐ PCR-BacR ☐ PCR-DG3 ☐ PCR-GULL2 ☐ PCR-GFD				☐ Ice				
Tracers (BG-500ML)		☒ W-E8321-DI ☒ W-E8321-MS				☒ Ice		MCAA Exp. Date	1	A
Pesticides (BG-500ML) (BG-1L)		☐ W-E8321-DI		☐ WE8321-MS	☒ W-PSNP-TQ	☐ W-CT-CI-R		MCAA Lot#	4	A
		☐ W-PCL-TQ-R		☐ W-CARB-AA (5 ml of MCAA** Buffer Solution)		☒ X	☐ W-TR-SQ-R			
Phytoplankton/Periphyton		☐ W-PQB-TQ-R		☐ PKD-QN-BV		☐ Ice				
Name: Nicole Reistad William Mullen				Signature:				Date: 08/24/2022		

*2.0 ml of Preservative used unless noted otherwise.

**MCAA: Monochloroacetic acid buffer solution



RQ- 2022-08-22-40

Collected By: Nicole Reistad, William Mullen

Customer: WQAP

Field Report Prepared By: Nicole Reistad, William Mullen

Project ID: SMP

Sampling Agency: FDEP

BLANK



Field ID: FB 08242022

Comments:

Matrix: Field Blank

(Check one) ☐ COMPOSITE ☒ GRAB

Date

Time

DI Source: Lab

8/24/2022

1350

EST

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		
	Lot # _____ Exp: _____				
Metals (P-500ML)	☐ W-ICPMS ☐ W-ICP	☐ Ice ☐ HNO3	☐ <2		
	Lot # _____ Exp: _____				
Filtered Nutrients (P125ML)	☐ W-PO4-F Filter ☐ Field Filtered 0.45 µm	☐ Ice			
	Filter Lot # _____				
	Syringe Lot # _____				
Physical/Aggregate (Fresh) (P-1L)	☐ Alkalinity / W-F / W-TSS / TURBIDITY / W-Cl-IC / W-COLOR / W-SO4-IC / W-IC / TDS	☐ Ice			
Physical/Aggregate (Marine) (P-1L)	☐ Alkalinity / W-BR-IC / W-F / W-TSS / TURBIDITY	☐ Ice			
Tracers (BG-500ML)	☐ W-E8321-DI ☐ W-E8321-MS	☐ Ice	MCAA Exp. Date _____		
Pesticides (BG-500ML) (BG-1L)	☐ W-E8321-DI ☐ WE8321-MS ☐ W-PSNP-TQ ☐ W-CT-CI-R	☐ Ice	MCAA Lot# _____		
	☐ W-PCL-TQ-R ☐ W-CARB-AA ☐ W-TR-SQ-R				
☐ W-PCB-TQ-R (5 ml of MCAA** Buffer Solution)					
Name: Nicole Reistad William Mullen		Signature: _____		Date: 08/24/2022	

*2.0 ml of Preservative used unless noted otherwise.

**MCAA: Monochloroacetic acid buffer solution

LIMS ID: 2352512 FORM FD 9100-31 LAKE OBSERVATION FIELD SHEET VISIT 185681
 COUNTY HIGHLANDS MACROPHYTE ID 12292 ALTITUDE 27.5563
 DATE 08/24/2022 STORE # — LONGITUDE -81.48943
 SITE NAME LAKE DENTON TIME 1035 SAMPLING AGENCY FDEP-SROC
 FIELD ID/NAME G4SD018D WARD 18428 LAKE SIZE — RO 2022-08-20-40
 WATERSHED / LAKESIDE FEATURES 2022-08-22-40

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)	Landscape Development Intensity (100 m buffer)													
<u>10</u>	<u>—</u>	<u>—</u>	<u>50</u>	<u>35</u>	<u>5</u>	<u>—</u>	<u>—</u>	Landscape Development Intensity (100 m buffer)													
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>3</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%-45% lakeside affected)				Many structures, roads or other human disturbance visible (50%-70% lakeside affected)				Highly developed or disturbed (>70% of lakeside affected)							
<u>4</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 >15 m buffer				80%-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>3</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>SA2146110</u> Exp. Date: <u>01/02/23</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 _____									
Water 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>31.5</u> <u>8.17</u> <u>7.92</u> <u>107.5</u> <u>281.1</u> <u>0.13</u> Mid-Depth: <u>2.0</u> <u>31.3</u> <u>8.21</u> <u>7.97</u> <u>108.0</u> <u>281.0</u> <u>0.13</u> Bottom: <u>9.8</u> <u>31.1</u> <u>8.09</u> <u>7.64</u> <u>103.0</u> <u>280.5</u> <u>0.13</u>										Clarity: ☒ Clear ☐ Opaque ☐ Turbid ☐ Slightly Turbid Color: ☒ Clear ☐ Tannic ☐ Green SECCHI (M) <u>6.0</u> Total Station Depth (M) <u>14.1</u> Meter ID: <u>PRESIDENT CAMACHO</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 ☒ Don't Know ☐ Active Vegetation Mgmt? ☒ Yes ☐ No ☐ Don't Know										Abundance: Absent Rare Common Abundant Periphyton ☒ ☐ ☐ ☐ Nuisance Plants ☐ ☐ ☒ ☐ Submersed Plants ☐ ☒ ☐ ☐ Exotic Apple Snails ☐ ☒ ☐ ☐									

Weather Conditions: SUNNY, FEW CLOUDS, WARM TEMPS

SAMPLING TEAM: NICOLE REISTAD, WILLIAM MULLEN

SIGNATURE: [Signature]

DATE: 08/24/2022

DEP FORM FD 9000-27 LAKE VEGETATION INDEX FIELD SHEET

Waterbody <u>Coke Denton</u>		County <u>Wichita</u>		Date <u>8/14/22</u>							
Analyst <u>William Miller</u>		Signature <u>William Miller</u>		STORET <u>G4SD0180</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.											
SPECIES	1	4	7	10	Collected? (Y)	SPECIES	1	4	7	10	Collected? (Y)
<i>Acer rubrum</i>						<i>Habenaria repens</i>					
<i>Alternanthera philoxeroides</i>						<i>Hydrilla verticillata</i>					
<i>Andropogon</i> sp.						<i>Hydrocotyle</i> sp.	X	X	X	X	
<i>Azolla filiculoides</i> (<i>A. caroliniana</i>)						<i>Hygrophila polysperma</i>					
<i>Baccharis</i> sp.						* <i>Hypericum fasciculatum</i>					
<i>Bacopa caroliniana</i>						* <i>Hypericum hypericoides</i>					
<i>Bacopa monnieri</i>						* <i>Hypericum myrtifolium</i>					
<i>Bidens laevis</i>						<i>Ilex cassine</i>					
<i>Bidens mitis</i>						<i>Ipomoea aquatica</i>					
<i>Blechnum serrulatum</i>						<i>Ipomoea sagittata</i>					
<i>Boehmeria cylindrica</i>						<i>Itea virginica</i>					
<i>Brasenia schreberi</i>						<i>Juncus effusus</i>					
<i>Cabomba caroliniana</i>						* <i>Juncus marginatus</i>					
<i>Casuarina equisetifolia</i>						* <i>Juncus megacephalus</i>					
<i>Centella asiatica</i>						<i>Juncus repens</i>					
<i>Cephalanthus occidentalis</i>	X	X	X	X		* <i>Juncus scirpoides</i>					
<i>Ceratophyllum demersum</i>						<i>Lachnanthes caroliniana</i>					
<i>Chara</i> sp.						<i>Leersia hexandra</i>					
<i>Cladium jamaicense</i>						<i>Landoltia punctata</i> (<i>Spirodela punctata</i>)					
<i>Cliftonia monophylla</i>						<i>Lemna</i> sp.					
<i>Colocasia esculenta</i>						<i>Leucothoe racemosa</i> (<i>Eubotrys racemosa</i>)					
* <i>Commelina</i>						<i>Limnobia spongia</i>					
<i>Crinum americanum</i>						<i>Limnophila sessiliflora</i>					
* <i>Cyperus alternifolius</i> (<i>C. involucratus</i>)						<i>Liquidambar styraciflua</i>					
<i>Cyperus articulatus</i>						* <i>Ludwigia arcuata</i>					
<i>Cyperus haspan</i>						* <i>Ludwigia leptocarpa</i>					
* <i>Cyperus lecontei</i>						* <i>Ludwigia linearis</i>					
* <i>Cyperus polystachyos</i>	X					* <i>Ludwigia octovalvis</i>					
* <i>Cyperus odoratus</i>						* <i>Ludwigia peruviana</i>	X			X	
* <i>Cyperus surinamensis</i>						* <i>Ludwigia repens</i>					
<i>Cynilla racemiflora</i>						* <i>Ludwigia</i>					
<i>Decodon verticillatus</i>						<i>Luziola fluitans</i> (<i>Hydrochloa carolinensis</i>)					
<i>Diodia virginiana</i>						<i>Lyonia lucida</i>					
* <i>Echinochloa crus-galli</i>						<i>Magnolia virginiana</i>					
* <i>Echinochloa muricatum</i>						<i>Mayaca fluviatilis</i>					
<i>Echinochloa walteri</i>						<i>Melaleuca quinquenervia</i>					
<i>Eclipta prostrata</i> (<i>E. alba</i>)						<i>Micranthemum glomeratum</i>					
<i>Egeria densa</i>						<i>Micranthemum umbrosum</i>					
<i>Eichhornia crassipes</i>						<i>Mikania scandens</i>					
* <i>Eleocharis baldwinii</i>						<i>Mimosa pigra</i>					
* <i>Eleocharis</i>						<i>Myrica cerifera</i>					
<i>Eleocharis cellulosa</i>	X	X	X	X		<i>B. indica</i>					
<i>Eleocharis equisetoides</i>						<i>Coriopsis floridana</i>					
<i>Eleocharis interstincta</i>						<i>Gynandria hypericifolia</i>					
* <i>Eriocaulon compressum</i>						<i>Cyperus esculentus</i>					
* <i>Eriocaulon decangulare</i>						<i>Yellow Flower</i>					
<i>Eupatorium capillifolium</i>						<i>B.</i>					
* <i>Fuirena</i>											
<i>Fuirena scirpoidea</i>	X	X	X	X							
<i>Gordonia lasianthus</i>											

NR

Site <u>CLSD0180</u>					Date <u>08/24/22</u>						
SPECIES	1	4	7	10	Collected? (Y)	SPECIES	1	4	7	10	Collected? (Y)
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					
Nymphoides aquatica						Solidago sp.					
Nyssa sylvatica var. biflora						Sparganium americanum					
Orontium aquaticum						Spartina bakeri					
Osmunda cinnamomea						Spirodela polyrhiza					
Osmunda regalis						Taxodium sp.		x		x	x
Panicum hemitomon					x	Thalia geniculata					
Panicum repens		x	x	x	x	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			x			*Utricularia purpurea					
Pistia stratioides						*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						Woodwardia virginica					
*Potamogeton diversifolius						Xyris sp.				x	
*Potamogeton illinoensis		x		x		Zizania aquatica		x			x
*Potamogeton pusillus						Zizaniopsis milacea					
*Potamogeton pectinatus (Stuckenia pectinatus)						Arifcus		x			
Proserpinaca pectinata						Spermatocoe verticillata		x			
*Rhexia cubensis				x		Utricularia pectinata		x	x	x	x
*Rhynchospora corniculata						Tripsacum flindleyi dactyloides					x
*Rhynchospora inundata						Quercus laurifolia		x			x
Rhynchospora tracyi						Paspalum conjugatum					
Ricciocarpus natans						Rhynchospora nitens				x	
Sabal palmetto			x			thin leaf small plant (upland)					
Sacciolepis striata											
*Sagittaria filiformis											
*Sagittaria graminea											
*Sagittaria isoetiformis											
Sagittaria lancifolia											
Sagittaria latifolia											