FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

REFERENCE LAKES Field Sheet

July 2022

Meter Passed End of Day CCV: (Yes) / No

WIN Station Name:	LAKE CHARLES , CENTER					**Sample Date:**	10/17/2023
WIN / Field ID:	20020430	**ORG ID:**	21FLA	**ENR:**		**Latitude:**	29.23069
County:	Marion	**WBID:**	2775F	LAKE		**Longitude:**	-81.90522
Receiving Body of Water:	N/A					**RQ-**	2023-08-28-18

Sampling Team Members	WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
Terry Riordan		x		x	x
Jessie Atchison	x		x		

Sampling Equipment					
x	Sample Container			Carboy	
	Dipper			Van Dorn	
x	Syringe			Pole	
Syringe Lot#	*2327923*		**Filter Lot#**	*17769663*	
Secchi Equipment ID:	*Light*				

Collection Method			
	Wading		**Canoe/Kayak**
	From Shore		**Electric Motor**
		x	**Gasoline Motor**
Depth Measured With	*Secchi*		

Water Level:	*Normal*
Flow:	*NA*
Matrix:	*Fresh*
Tide Stage:	*N/A*
High Tide:	
Low Tide:	
Photos:	*Yes*
Meter ID:	*Shrimp Trap*
Depth Gauge ID:	**depth_gauge**

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 (PPTh)
EST	1326	2.1	0.3	7.94	93.3	23.4	6.39	0.3	90.1	0.04
	1335		1.6	7.67	88.7	22.5	6.45		90.1	0.04

Biological Samples Collected: None

SBIO Visit ID: 88109 **HA ID:** **RPS ID:** **Macrophyte ID:** 12614 **LIMS Sample ID In The Macrophyte Module:** 2445623

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**				
	W-CL-IC, W-COLOR, W-SO4-IC, W-TDS			**ICE**				
Filtered Nutrients	**W-PO4-F**	**Field Filtered 0.45 µm Filter**		**ICE**		Syring Lot#:2327923 ; Filter Lot#:17769663		
Acid Preserved Nutrients	**W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP**			**ICE**	**H2SO4***	*SA3193140*	*07/31/2024*	*H2SO4 pH<2*
Metals	**W-ICPMS**	**W-ICP**	**W-HARD**	**ICE**	**HNO3****	NA3193130	07/27/2024	HNO3 pH<2
Organics (LC)	**W-E8321-DI**	**W-E8321-MS**			**MCAA*****			
Macroinvertebrates								
Organics (GC)				**Ice**				
	W-PSNP-TQ	**W-TR-SQ-R**						
Molecular								
Periphyton								
Phytoplankton	**DTY-QN-C**	**PKD-QN-BV**		**Ice**				
BOD								
DOC								
					SyringLot#		**FilterLot#**	
Other(s)								

*2.0 ml of H2SO4 Used Unless Noted Otherwise
**2.0 ml of HNO3 Used Unless Noted Otherwise

Field Comments:	60 and windy
Comments on COC:	Please log in PKD-QN-BV & DTY-QN-C under a separate event with priority 12, Bottle Group - B. |
Relinquish Date:	10/17/2023 **Signature:** Jessie Atchison

LIMS EVENT ID: CEN-DIST-10-18-01 **WIN Import ID:** 44069

Enter Field Parameters, Verify Station ID In LIMS DMT: KWM 11/9/23 (Initials/Date)

QC Station ID, Field Parameters In LIMS DMT: VLS 11/21/23 (Initials/Date)

Save Field Sheets on Network: KWM 12/1/23 (Initials/Date)

Migrate Data to WIN: KWM 12/1/23 (Initials/Date)

DEP FORM FD 9000-31: LAKE OBSERVATION FIELD SHEET

SAMPLE ID: _____ MACROPHYTE ID: _____ LATITUDE: 29.230169

COUNTY: Marion STORET #: 20020430 LONGITUDE: -81.90522

DATE: 10/17/23 TIME: _____ SAMPLING AGENCY: FDEP

SITE NAME: Lake Charles WBID: 2775F

FIELD ID/NAME: Lake Charles, Center LAKE SIZE: _____ RQ: 2023-08-28-12

WATERSHED / LAKESIDE FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category – from GIS):

Forest/Natural	Silviculture	Field/Pasture	Agricultural	Residential	Commercial	Industrial	Other (Specify)
88		10		2			

LANDSCAPE DEVELOPMENT INTENSITY (100 m buffer)

LDI: _____

Land Use Source & Year:

Local Watershed Erosion (select one) : ☒ None ☐ Slight ☐ Moderate ☐ Heavy

Local Watershed NPS Pollution : ☒ No evidence ☐ Slight ☐ Moderate ☐ Heavy

Artificially Impounded ☐ Yes ☒ No

STORMWATER INPUTS 18	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 18	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 19	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 ☒ pH<2 ☐ No

Color Sample Taken? ☒ Yes ☐ No Lot # SA3193140 Exp. Date: 7/31/24

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:	Depth (M)	Temp. (°C)	pH (SU)	D.O. (MG/L)	D.O. Sat. (%)	Cond. (UMHO/CM)	Salinity (PPT)
Top:	0.3	23.4	6.39	7.94	93.3	90.1	0.04
Mid-Depth:							
Bottom :	1.6	22.5	6.45	7.67	88.7	90.1	0.04

Meter ID: Shrimptrap

Clarity: ☐ Clear ☐ Opaque ☐ Turbid ☒ Slightly Turbid

Color: ☐ Clear ☒ Tannic ☐ Green

SECCHI (M) 0.3 VOB ☐

Total Station Depth (M) 2.1

Sediment Type: (may check more than one)

☒ Sandy ☐ Organic fibrous (peaty, CPOM) ☐ Vegetated

☐ Sand/Silt ☐ Organic smooth (muck) ☐ Other (Specify): _____

Sample Taken? ☐ Yes ☒ No

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:

	Absent	Rare	Common	Abundant
Periphyton	☐	☐	☒	☐
Nuisance Plants	☐	☒	☐	☐
Submersed Plants	☐	☒	☐	☐
Exotic Apple Snails	☒	☐	☐	☐

Additional Notes:

Weather Conditions :

60 f windy

SAMPLING TEAM: Terry Riordan & Jessie Atchison TR

SIGNATURE: Jessie Atchison

DATE: 10/17/23

62-160.800, F.A.C.

Revision Date: January 20

DEP FORM FD 9000-27 LAKE VEGETATION INDEX FIELD SHEET

Waterbody: Lake Charles	County: Marion	Date: 10/17/23
Analyst: JA, TR	Signature:	STORET: 2002430

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
2, 5, 8, 11
3, 6, 9, 12

SPECIES	2	5	8	11	Collected? (√)	SPECIES	2	5	8	11	Collected? (√)
Acer rubrum	/	/	/	/		Fraxinus sp.	/	/		/	
Alternanthera philoxeroides						Fuirena scirpoidea					
Amaranthus australis						Gordonia lasianthus	/	/	/		
Andropogon sp.	/			/		Habenaria repens					
Azolla filiculoides				/		Hibiscus coccineus					
Baccharis sp.						Hibiscus grandiflorus					
Bacopa caroliniana						**Hydrilla verticillata**					
Bacopa monnieri						Hydrocotyle sp.	/		/	/	
Bidens alba						**Hygrophila polysperma**					
Bidens laevis						Hymenocallis sp.					
Bidens mitis						*Hypericum fasciculatum					
Blechnum serrulatum						*Hypericum hypericoides					
Boehmeria cylindrica						*Hypericum myrtifolium					
Brasenia schreberi						Ilex cassine	/	/		/	
Cabomba caroliniana						**Ipomoea aquatica**					
Canna sp.						Ipomoea sagittata					
Centella asiatica						Itea virginica					
Cephalanthus occidentalis		/	/	/		Juncus effusus					
Ceratophyllum demersum						*Juncus marginatus					
Chara sp.						*Juncus megacephalus					
Cicuta maculata						Juncus repens					
Cinnamomum camphora						*Juncus scirpoides					
Cladium jamaicense	/	/	/	/		Kosteletzkya pentacarpos					
Colocasia esculenta						Lachnanthes caroliniana					
*Commelina						Leersia hexandra					
Crinum americanum	/	/	/	/		**Landoltia punctata (Spirodela punctata)**					
Cyperus articulatus						Lemna sp.					
Cyperus haspan						Leucothoe racemosa (Eubotrys racemosa)					
***Cyperus involucratus**						Limnobium spongia					
*Cyperus lecontei						**Limnophila sessiliflora**					
*Cyperus odoratus						Liquidambar styraciflua					
*Cyperus polystachyos						*Ludwigia arcuata					
*Cyperus surinamensis						*Ludwigia grandiflora					
Cyrilla racemiflora						*Ludwigia hexapetala					
Decodon verticillatus						*Ludwigia leptocarpa					
Diodia virginiana						Ludwigia (native)					
*Echinochloa crus-galli						*Ludwigia octovalvis					
*Echinochloa muricata						***Ludwigia peruviana**					
Echinochloa walteri						*Ludwigia repens					
Eclipta prostrata						Ludwigia suffruticosa					
Eichhornia crassipes						Luziola fluitans					
*Eleocharis						Magnolia virginiana	/	/	/	/	
Eleocharis cellulosa						Mayaca fluviatilis					
*Eleocharis elongata						**Melaleuca quinquenervia**					
Eleocharis equisetoides						**Melaleuca viminalis**					
Eleocharis interstincta						Micranthemum glomeratum					
Eleocharis submersed viviparous						Micranthemum umbros					
*Eriocaulon compressum						Mikania scandens	/	/	/	/	
*Eriocaulon decangulare						Myrica cerifera (Morella cerifera)	/	/	/	/	
Eupatorium capillifolium	/	/	/			Musa terrencesis					

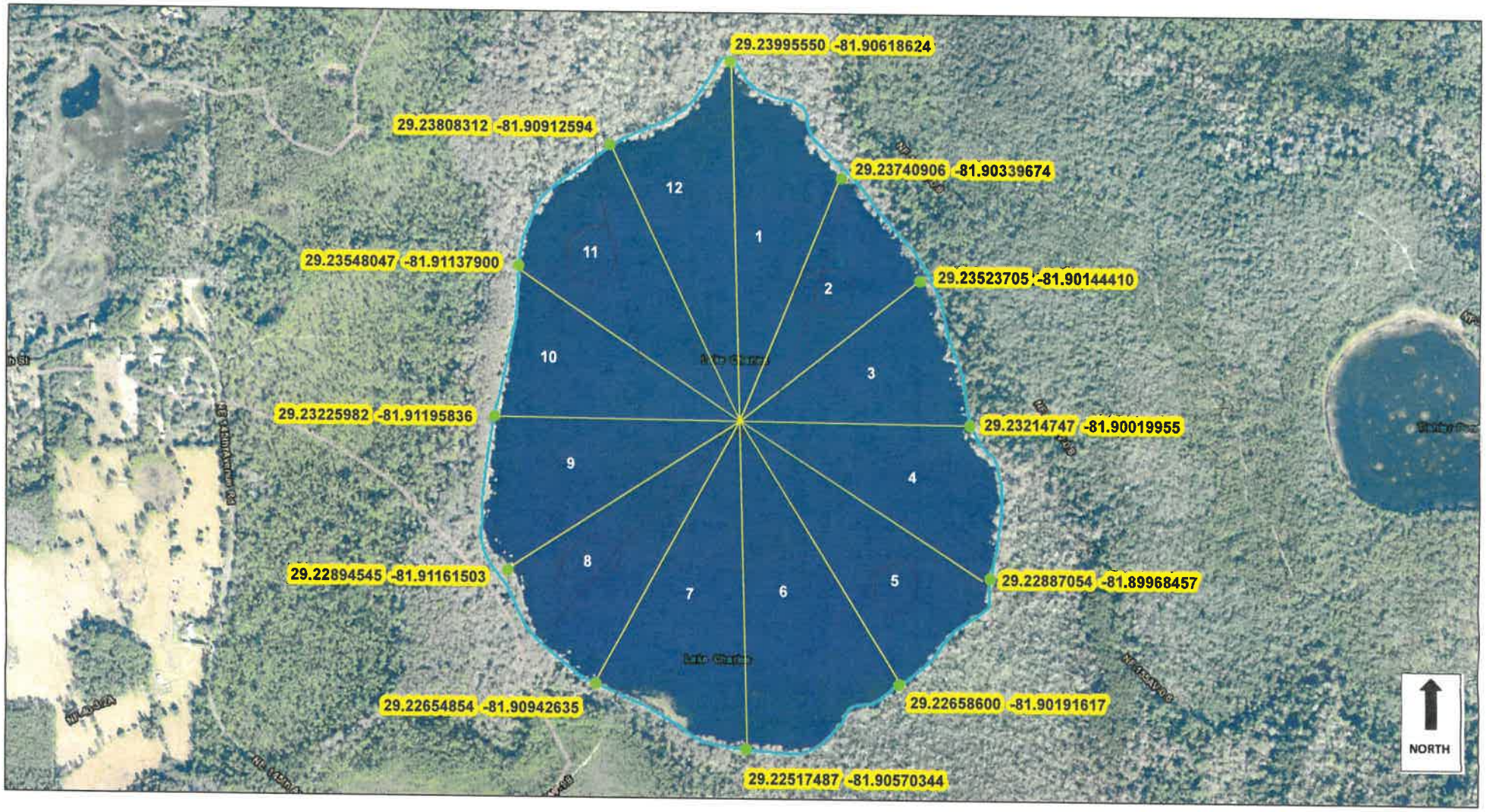
FORM FD 9000-27: LAKE VEGETATION INDEX FIELD SHEET

Site: Lake Charles | Date: 10/17/23

SPECIES	2	5	8	11	Collected? (√)
Myriophyllum aquaticum					
Myriophyllum heterophyllum					
Myriophyllum laxum					
Myriophyllum pinnatum					
Myriophyllum spicatum					
Najas filifolia					
Najas guadalupensis					
Nelumbo lutea					
Nitella spp.					
Nuphar advena	/	~~D~~	~~D~~		
Nymphaea mexicana					
Nymphaea odorata					
Nymphoides aquatica					
Nyssa sylvatica var. biflora	/		/	/	
Orontium aquaticum					
Osmunda cinnamomea (Osmundastrum cinnamomeum)		/			
Osmunda regalis					
Panicum hemitomon	/	/	/	/	
Panicum repens					
Paspalidium geminatum	/	/	/	/	
*Paspalum repens					
Paspalum urvillei					
Peltandra sp.					
Persea sp.			/		
*Persicaria glabra (densiflora)					
Persicaria hirsuta					
*Persicaria hydropiperoides					
*Persicaria punctata	/	/	/	/	
*Persicaria _____					
Pennisetum purpureum (Cenchrus purpureus)					
Phragmites australis (P. berlandieri)					
Pinus elliottii	/	JA			
Pistia stratiotes	/				
Pluchea sp.					
Pontederia cordata	/	/	/		
*Potamogeton diversifolius					
*Potamogeton illinoensis					
*Potamogeton pusillus					
*Potamogeton pectinatus (Stuckenia pectinatus)					
Proserpinaca pectinata					
*Rhexia _____					
*Rhynchospora corniculata		/		/	
*Rhynchospora inundata					
Rhynchospora nitens					
Ricciocarpos natans					
Sabal palmetto		/		/	
Sacciolepis striata					
*Sagittaria filiformis					
*Sagittaria graminea					
*Sagittaria isoetiformis					
Sagittaria lancifolia					
Sagittaria latifolia	/			/	

SPECIES	2	5	8	11	Collected? (√)
Salix caroliniana		/	/	/	
Salvinia minima				/	
Sambucus canadensis					
Sapium sebiferum (Triadica sebifera)					
Saururus cernuus		/	/		
Schinus terebinthifolia					
*Schoenoplectus californicus					
*Schoenoplectus pungens					
*Schoenoplectus tabernaemontani					
Scirpus cubensis (Cyperus blepharoleptos)	/			/	
Scirpus cyperinus					
*Sesbania _____					
Solidago sp.					
Sparganium americanum					
Spartina bakeri					
Spirodela polyrhiza					
Taxodium sp.	~~D~~	~~D~~	D	~~D~~	NOT DJA
Thalia geniculata					
Thelypteris interrupta					
Thelypteris palustris					
Triadenum virginicum (Hypericum virginicum)					
Typha sp.	/	/			
Urochloa mutica					
*Utricularia foliosa					
*Utricularia floridana					
*Utricularia gibba					
*Utricularia inflata					
*Utricularia purpurea					
*Utricularia radiata					
*Utricularia resupinata					
Vallisneria americana					
*Websteria confervoides (Eleocharis confervoides)					
Wedelia trilobata (Sphagneticola trilobata)					
Wolffiella sp.					
Woodwardia virginica	/		/	/	
Xyris sp.					
Zizania aquatica					
Zizaniopsis miliacea					
~~Rhynchospora sp.~~ JA				/	(11)S?
Vitis	/		/	/	
Aster cardinianus			/	/	
Ulmus sp.				/	
Lyonia (Staggerbush)			/		

LVI MAP for Lake Charles, WBID 2775F



1:10,144

0 0.1 0.2 0.4 mi

0 0.17 0.35 0.7 km

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