



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STRATEGIC MONITORING PLAN FIELD SHEET

January 2020

Meter Passed End
of Day CCV
Yes / No

WIN Station Name: Lake Kinsale **Date:** 8/4/2021
WIN/Field ID: G1TLHR0148 **WBID:** 647K **ENR:** - **Latitude:** 30.53
County: LEON **Org ID:** 21FLTLHR **Longitude:** -84.22
Receiving Body of Water: Ochlockonee - St. Marks **RQ:** 2021-02-22-38

Sampling Team Members		WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
☒	Jonathan Woods	x		x		
☒	Paul Blair		x		x	x
☐						
☐						

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

Water Level: ☒ Normal ☐ Low ☐ High ☐ Dry ☐ Pooled ☐ Flooded						Meter ID# 153484					
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:	Time:	Field ID:	(Blank Type_DDDMMYYY)
DI Source:		Location:	
DI Type:		Equipment ID:	
DI Container (Name/ID):		DI Container Type:	

LIMS EVENT ID: WIN Import ID:
Enter Field Parameters, Verify Station ID In LIMS DMT: QC Station ID, Field Parameters In LIMS DMT:
(Initials/Date) (Initials/Date)
Scan/Save Field Sheets Migrate Data to WIN: Verify Data In WIN:
(Initials/Date) (Initials/Date) (Initials/Date)



RQ-2021-02-22-38

Customer: WQAP

Project ID: SMP

Collected By: Jonathan Woods, Paul Blair

Field Report Prepared By: Jonathan Woods

Sampling Agency: FDEP

Place Label Here

WIN ID/Field ID:



G1TLHR0148

Location: Lake Kinsale

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)		
	850 EST	2.89	37.9	29.3	6.6	0.3	0.6 ☐ VOB (S)	1.1	67.3	0.03		
8/4/2021												
	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	1	A		
		Lot #	1105060	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 #	17162587									
		Syringe Lot #	0079900									
Chlorophyll (BP-1L)		☒ CHLSUITE-W				☒ Ice						
Physical/Aggregate (Fresh) (P-1L)		☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-Cl-IC / W-COLOR / W-SO4-IC / W-TDS				☒ Ice						
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 ☐ 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						
Pesticides (BG-500ML) (BG-1L)		W-E8321-DI	WE8321-MS	W-PSNP-TQ	W-CT-CL-R	☐ Ice						
Phytoplankton/Periphyton		W-PCL-TQ-R	W-CARB-AA (5 ml of MCAA** Buffer Solution)	DTY-QN-C	PKD-QN-BV	☐ Ice						
Name: Jonathan Woods Paul Blair					Signature:				Date:			

*2.0 ml of Preservative used unless noted otherwise.

**MCAA: Monochloroacetic acid buffer solution

DEP FORM FD 9000-27 LAKE VEGETATION INDEX FIELD SHEET

Waterbody: <u>Lake Kinsale</u>	County: <u>Lynn</u>	Date: <u>8/1/21</u>
Analyst: <u>son w. wadsworth</u>	Signature: <u>[Signature]</u>	STORET: <u></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 2, 5, 8, 11 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	1	4	7	10	Collected? (✓)	SPECIES	1	4	7	10	Collected? (✓)
Acer rubrum						Habenaria repens					
Alternanthera philoxeroides	✓	✓	✓	✓		Hydrilla verticillata					
Andropogon sp.						Hydrocotyle sp.	✓	✓	✓		
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						Ipomoea sagittata					
Boehmeria cylindrica	✓	✓	✓	✓		Itea virginica					
Brasenia schreberi						Juncus effusus	✓	✓	✓		
Cabomba caroliniana						*Juncus marginatus					
Casuarina equisetifolia						*Juncus megacephalus					
Centella asiatica						Juncus repens					
Cephalanthus occidentalis	✓	✓	✓	✓		*Juncus scirpoides					
Ceratophyllum demersum						Lachnanthes 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					
*Cyperus lecontei						*Ludwigia linearis					
*Cyperus polystachyos						*Ludwigia octovalvis					
*Cyperus odoratus	✓	✓	✓	✓		* Ludwigia peruviana					
*Cyperus surinamensis						*Ludwigia repens					
Cyrtilla racemiflora						*Ludwigia					
Decodon verticillatus						Luizola 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						Mikania scandens					
*Eleocharis baldwinii						Mimosa pigra					
*Eleocharis						Myrica cerifera					
Eleocharis cellulosa											
Eleocharis equisetoides						<u>Carex lasiocarpa</u>	✓				
Eleocharis interstincta						<u>Cyperus vicens</u>	✓				
*Eriocaulon compressum						<u>Ludwigia</u>					
*Eriocaulon decangulare											
Eupatorium capillifolium											
*Fuirena											
Fuirena scirpoidea											
Gordonia lasianthus											

WIN ID / Field ID →

KIT: N, Ecoli, LVI

WBID: 647K

Location

G1TLHR0148

LAKE KINSALE

[illegible]

DEP FORM FD 9000-31: LAKE OBSERVATION FIELD SHEET

SAMPLE ID: 617CHR0146 MACROPHYTE ID: _____ LATITUDE: _____
COUNTY: Leon STORET #: _____ LONGITUDE: _____
DATE: 8/4/21 TIME: 650 SAMPLING AGENCY: ZIFCTHR
SITE NAME: Lake Kinsale WBID: 64716
FIELD ID/NAME: _____ LAKE SIZE: _____ RQ: 2021-02-22-36

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>90</u>	<u>10</u>					Land Use Source & Year:							
Local Watershed Erosion (select one) : ☒ None ☐ Slight ☐ Moderate ☐ Heavy										Artificially Impounded ☒ Yes ☐ No							
Local Watershed NPS Pollution : ☐ No evidence ☒ Slight ☐ Moderate ☐ Heavy																	
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>8</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>5</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>2</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>1105060</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>29.3</u> <u>6.60</u> <u>2489</u> <u>37.9</u> <u>67.3</u> <u>0.03</u> Mid-Depth: _____ Bottom: _____										Water Surface Oils: ☐ None ☐ Sheen/Slick ☒ Glob ☐ Other _____									
Meter ID: <u>153464</u>										Clarity: ☐ Clear ☒ 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>1.1</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 ☐ Don't Know Active Vegetation Mgmt? ☐ Yes ☒ No ☐ Don't Know										Sediment Odors: ☐ Normal ☐ Other (Specify): _____ ☒ Anaerobic									
Weather Conditions: <u>Cloudy</u>										Abundance: Absent Rare Common Abundant Periphyton ☐ ☐ ☒ ☐ Nuisance Plants ☐ ☐ ☐ ☒ Submersed Plants ☐ ☒ ☐ ☐ Exotic Apple Snails ☐ ☐ ☐ ☒									
Additional Notes:																			

SAMPLING TEAM:

Woods/Blair

SIGNATURE:

[Signature]

DATE:

8/4/21

DEP Form FD 9000-6: Lake Habitat Assessment Field Sheet

STORET STATION NUMBER: G1TLH201450	DATE (M/D/Y): 8/4/21	LAKE NAME: Lake Kinsale	FIELD ID / NAME:
ECO-REGION:	COUNTY: Leon	SAMPLING LOCATION/DESCRIPTION: east end	LAKE SIZE:
PARAMETER	No surface inflow or outflow present, very long water residence time, groundwater seepage dominates ☐	Surface water inflow present, but flow is rare, moderate to long water residence time ☐	Surface water inflow and outflow present (or outflow only), sometimes with visible flow, short water residence time ☐
HYDROLOGY			Impounded, hydrology of system artificially controlled ☒
Color	Very clear, uncolored water (benthic sampling appropriate) ☐	Water somewhat tannin stained (benthic sampling appropriate) ☐	Dark, discolored water (water color 20 PCU or higher) ☒
	Optimal	Suboptimal	Marginal
Secchi ☐	Secchi >3 m Or VOB	3 2.6 2.2 1.8 1.4	1.0 0.9 0.8 0.7 0.6
	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6
Vegetation Quality ☐	Diverse, expected native vegetation (emergent or submersed), less than 5% nuisance taxa 10	Mostly expected native plants, but moderate growths (6%-20% of lake) of nuisance macrophytes, or more than 50% of lake covered with plants	Large masses (21%-40%) of nuisance macrophytes (e.g., Hydrilla, hyacinth, cattail, etc.) or algal mats
	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6
Stormwater Inputs ☐	Stormwater enters system via sheet flow over non-cultivated and/or natural vegetation 8	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
	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6
Bottom Substrate Quality ☐	Diverse mixture of sand, detritus, with small amounts of CPOM/mud/muck. SAV may be present 11	Mixture of sand or clay and detritus with higher % CPOM/mud/muck content. SAV may be present	Moderate layer of CPOM/mud/muck, or hardpacked sand only, or moderate algal growth (mats or Chara) on bottom
	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6
Lakeside Adverse Human Alterations ☐	Very few man-made structures, roads, or other disturbance adjacent to lake (<10%) 5	Moderate disturbance visible (structures, roads or other), 10%-49% lakeside affected	Many structures, roads or other human disturbance visible (50%-70%) lakeside affected
	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6
Upland Buffer Zone ☐	Expected native vegetation between uplands and littoral zone, greater than 90% of shore with >18 m buffer 2	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
	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6
Adverse Watershed Land Use ☐	Score the potential effects from adverse human land uses, based on a continuum of amount and type, with least to most adverse as follows: Native vegetation, Silviculture, Pasture or Citrus, Low Density Residential, Row Crops, Commercial, High Density Residential, Urban, Industrial 7		
	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6

TOTAL SCORE

49

COMMENTS:

ANALYSIS DATE:

8/4/21

ANALYST:

Woods

SIGNATURE:

Woods