



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION REFERENCE LAKES FIELD SHEET

January 2020

Meter Passed End

of Day CCV

Yes

No

WIN Station Name: Holly Lake at Center of Lake

Date: 9/13/2021

WIN/Field ID: 20020553

WBID: 2803A

ENR: -

Latitude: 28.9411

County: LAKE

Org ID: 21FLCEN

Longitude: -81.72

Receiving Body of Water: Ocklawaha

RQ: 2021-09-13-29

Sampling Team Members		WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
☒	Katie March		x		x	x
☒	Victoria Schwartz	x		x		
☐						
☐						

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

Water Level: ☒ Normal ☐ Low ☐ High ☐ Dry ☐ Pooled ☐ Flooded						Meter ID# CRAW DADDY					
Photos: YES		Flow: NA		Tide:		Tide Times: High: Low:					
Biological Samples Collected: ☐ None ☐ HA ☐ SCI ☐ RPS ☐ Algae ID ☐ LVS ☒ LVI Other:											
SBIO ID Numbers: Visit ID:83141 Macrophyte ID: 11956						LIMS:2275660					
Notes: SUNNY											

Duplicate Sample

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

Blank

Time Zone: EST	Time: 1228	Field ID: FB_09132021	(Blank Type_DDMYYYY)
DI Source: Lab Sink		Location: Boat Ramp	
DI Type: Field Blank		Equipment ID:	
DI Container (Name/ID): #6		DI Container Type: Carboy	

LIMS EVENT ID: CEN-DIST-2021-09-14-01	WIN Import ID: 32598
Enter Field Parameters, Verify Station ID In LIMS DMT: EB 9/27/21	QC Station ID, Field Parameters In LIMS DMT: KWM 11/12/21
(Initials/Date)	(Initials/Date)
Scan/Save Field Sheets KWM 5/5/22	Migrate Data to WIN: KWM 5/5/22
(Initials/Date)	(Initials/Date)
Verify Data In WIN:	
(Initials/Date)	



RQ-2021-09-13-29

Customer: WQAP

Project ID: SMP

Collected By: Katie March, Victoria Schwartz

Field Report Prepared By: Katie March

Sampling Agency: FDEP

Place Label Here

WIN ID/Field ID:



20020553

Location: Holly Lake at Center of Lake

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)			
	1202 EST	5.22	68.4	29.4	7.19	0.3	0.7 ☐ VOB (S)	4.7	257.1	0.12			
9/13/2021	1206	4.54	58.8	28.7	7.09	2	Central Lab please use top row for login purposes		257.1	0.12			
	1208 EST	0.47	6	28.2	6.65	4.2			276.8	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	B			
		Lot #	SA1105060		Exp:	4/30/22							
Metals (P-500ML)		☒ W-ICPMS ☒ W-ICP ☒ W-HARD				☒ Ice ☒ HNO3*		☒ <2	1	B			
		Lot #	NA0344060		Exp:	1/4/22							
Filtered Nutrients (P125ML)		☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter				☒ Ice			1	B			
		Filter Lot #	17135566										
		Syringe Lot #	1112035										
Chlorophyll (BP-1L)		☒ CHLSUITE-W				☒ Ice			1	B			
Physical/Aggregate (Fresh) (P-1L)		☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-Cl-IC / W-COLOR / W-SO4-IC / W-TDS				☒ Ice			1	B			
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							
		☐ W-PCL-TQ-R	W-CARB-AA (5 ml of MCAA** Buffer Solution)										
Phytoplankton/Periphyton		☒ DTY-QN-C ☒ PKD-QN-BV				☒ Ice			1	B			
Name: Katie March Victoria Schwartz					Signature: Victoria Schwartz				Date: 9/13/21				

*2.0 ml of Preservative used unless noted otherwise.

**MCAA: Monochloroacetic acid buffer solution



RQ- 2021-09-13-29

Customer: WQAP

Project ID: SMP

Collected By: Katie March, Victoria Schwartz

Field Report Prepared By: Katie March, Victoria Schwartz

Sampling Agency: FDEP

BLANK



Field ID: FB_09132021

Comments:

Matrix: Field Blank

(Check one) ☐ COMPOSITE ☒ GRAB

Date

Time

DI Source: Lab Sink

9/13/2021

1228

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	C
	Lot # SA1105060 Exp: 4/30/22				
Metals (P-500ML)	☒ W-ICPMS ☒ W-ICP	☒ Ice ☒ H2SO4	☒ <2	1	C
	Lot # NA0344060 Exp: 1/4/22				
Filtered Nutrients (P125ML)	☒ W-PO4-F Filter ☒ Field Filtered 0.45 µm	☒ Ice		1	C
	Filter Lot # 17135566				
	Syringe Lot # 1112035				
Physical/Aggregate (Fresh) (P-1L)	☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-Cl-IC / W-COLOR / W-SO4-IC / W-IC / TDS	☒ Ice		1	C
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			
Pesticides (BG-500ML) (BG-1L)	☐ W-E8321-DI ☐ WE8321-MS ☐ W-PSNP-TQ ☐ W-CT-CL-R ☐ W-PCL-TQ-R ☐ W-CARB-AA (5 ml of MCAA** Buffer Solution) ☐	☐ Ice			
Name: Katie March Victoria Schwartz		Signature: Victoria Schwartz		Date: 9/13/21	

*2.0 ml of Preservative used unless noted otherwise.

**MCAA: Monochloroacetic acid buffer solution

DEP FORM FD 9000-31: LAKE OBSERVATION FIELD SHEET

Ref. Lake

SAMPLE ID: _____ MACROPHYTE ID: _____ LATITUDE: _____
COUNTY: _____ STORET #: 20020553 LONGITUDE: _____
DATE: 9/13/21 TIME: _____ SAMPLING AGENCY: 21FCEN
SITE NAME: Holly Lake WBID: 2803A
FIELD ID/NAME: _____ LAKE SIZE: _____ RQ: 2021-09-13-29

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)							
<u>46</u>			<u>30</u>	<u>30</u>										
Local Watershed Erosion (select one) : ☐ None ☒ Slight ☐ Moderate ☐ Heavy										Artificially Impounded				
Local Watershed NPS Pollution : ☐ No evidence ☒ Slight ☐ Moderate ☐ Heavy										☐ Yes ☒ No				
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>13</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>14</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 # _____ Exp. Date: _____ 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: _____ Mid-Depth: _____ Bottom: _____								Clarity: ☐ Clear ☒ Opaque ☐ Turbid ☒ Slightly Turbid Color: ☐ Clear ☒ Tannic ☒ Green SECCHI (M) _____ Total Station Depth (M) _____ VOB ☐							
Sediment Type: (may check more than one) ☐ Sandy ☒ Organic fibrous (peaty, CPOM) ☐ Vegetated ☐ Sand/Silt ☐ Organic smooth (muck) ☐ Other (Specify): _____								Sediment Odors: <u>N/A</u> ☐ 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: <u>Residential areas are low density.</u>															
Weather Conditions :															
SAMPLING TEAM: <u>Kate Mandy Victoria Schwartz</u>								SIGNATURE: <u>KMandy</u>				DATE: <u>9/13/21</u>			

Ref. Lake

Waterbody: <u>Holly Lake</u>	County: <u>Lake</u>	Date: <u>9/13/21</u>									
Analyst: <u>Katie Mark / Victoria Schwartz</u>	Signature: <u>[Signature]</u>	STORET: <u>20020553</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): <u>1, 4, 7, 10</u> 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	/	/	/	/		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				/		Limnobia spongia					
*Cyperus lecontei						Limnophila sessiliflora					
*Cyperus polystachyos				/		Liquidambar styraciflua					
*Cyperus odoratus						*Ludwigia arcuata					
*Cyperus surinamensis				/		*Ludwigia grandiflora					
Cyrtilla 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 viviparous						Mikania scandens					
*Eriocaulon compressum						Mimosa pigra	/	/	/	/	
*Eriocaulon decangulare						Myrica cerifera	/	/	/	/	
Eupatorium capillifolium											
Fraxinus											

FORM FD 9000-27: LAKE VEGETATION INDEX FIELD SHEET

Site: <u>Holly Lake</u>					Date: <u>9/13/21</u>						
SPECIES	1	4	7	10	Collected? (✓)	SPECIES	1	4	7	10	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)						Smilax	/				
Proserpinaca pectinata						Phyla nodiflora			/		
*Rhexia											
*Rhynchospora corniculata											
*Rhynchospora inundata											
Rhynchospora nitens											
Ricciocarpus natans											
Sabal palmetto											
Sacciolepis striata											
*Sagittaria filiformis											
*Sagittaria graminea											
*Sagittaria isoetiformis											
Sagittaria lancifolia	/	/	/	/							
Sagittaria latifolia											

Ref. Lake
9/13/21

Holly Lake (Lake County)

