FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PLAN FIELD SHEET

January 2020

Meter Passed End of Day CCV Yes / No X

WIN Station Name: Holly Lake Center **Date:** 10/13/2021

WIN/Field ID: G4NW0517 **WBID:** 266B **ENR:** **Latitude:** 30.77722

County: Holmes **Org ID:** 21FlPNS **Longitude:** -86.17591

Receiving Body of Water: Narrows Creek **RQ-** 2021-08-09-28

Sampling Team Members	WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
[x] Mike King	x		x		
[x] Frank Butera		x		x	x
[ ]					
[ ]					

Sampling Equipment

- [x] Sample Container
- [ ] Dipper
- [x] Syringe
- [ ] Carboy
- [ ] Van Dorn
- [ ] Pole

Depth measured with: Meter

Secchi Equipment ID:

Collection Method

- [ ] Wading
- [ ] From Shore
- [ ] Other
- [x] Canoe/Kayak
- [ ] Electric Motor
- [ ] Gasoline Motor

Water Level: [x] Normal [ ] Low [ ] High [ ] Dry [ ] Pooled [ ] Flooded

Meter ID# 155077 (PRODSS)

Photos: YES **Flow:** NA **Tide:**

Tide Times: High: Low:

Biological Samples Collected: [ ] None [x] HA [ ] SCI [ ] RPS [ ] Algae ID [ ] LVS [x] LVI Other:

SBIO ID Numbers:

Notes:

Fish feeders added to enhance fishing. Pond recently stocked with Shad, Sunfish, and Bass. Sunny, 80's. No rain last 6 days. Property owner requires non-gas motors on lake. Lots of stumps. Dissolved Oxygen on YSI failed post-verification.

Station needs to be added to WIN

Duplicate Sample

Time Zone: CEN **Time:** **Field ID:** N/A (WIN ID_DUP)

WIN DMT Activity ID:

Blank

Time Zone: **Time:** **Field ID:** (Blank Type_DDMMYYYY)

DI Source: **Location:**

DI Type: **Equipment ID:**

DI Container (Name/ID): **DI Container Type:**

LIMS EVENT ID: 2283514 **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 FB / 10/13/2021 (Initials/Date) **Migrate Data to WIN:** (Initials/Date) **Verify Data In WIN:** (Initials/Date)

RQ-2021-08-09-28
Customer: WQAP
Project ID: SMP

Collected By: Mike King, Frank Butera
Field Report Prepared By: Mike King
Sampling Agency: FDEP

Place Label Here

WIN ID/Field ID: G4NW0517

Location: Holly Lake Center

Comments:
Dissolved Oxygen failed on YSI post verification.

Matrix: Fresh

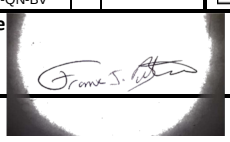
(Check one) ☒ GRAB ☐ COMPOSITE

Date	Time	DO (mg/L)	DO (%SAT)	Temp. (C⁰)	pH	Sample Depth (m)	Secchi Disk (m)	Total Depth (m)	Sp COND (µmhos/cm)	Salinity (PPTh)
	1155 CEN	J 7.96	J 100.3	27	5.69	0.3	2.6 ☐ VOB (S)	2.9	18.2	0.01
10/13/2021	1200	7.9 J	98.9 J	26.7	5.67	2.0			18.1	0.01
	1205 CEN	J 7.78	J 97.2	26.7	5.58	2.4			18.1	0.01

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 ☒ H_2SO_4*	☒ <2	1	A
	Lot #	SA0353110	**Exp:**	01/11/2022			
Metals (P-500ML)	☒ W-ICPMS ☒ W-ICP ☒ W-HARD			☒ Ice ☒ HNO_3*	☒ <2	1	A
	Lot #	NA1105100	**Exp:**	06/07/2022			
Filtered Nutrients (P125ML)	☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter			☒ Ice		1	A
	Filter Lot #	17236199					
	Syringe Lot #	1005533					
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-BR-IC / W-F / W-TSS / TURBIDITY			☒ Ice		1	A
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 ☐ W-PCL-TQ-R ☐ W-CARB-AA (5 ml of MCAA** Buffer Solution)			☐ Ice			
Phytoplankton/Periphyton	☐ DTY-QN-C ☐ PKD-QN-BV			☐ Ice			

Name:
Mike King
Frank Butera

Signature



Date: 10/13/2021

*2.0 ml of Preservative used unless noted otherwise.
**MCAA: Monochloroacetic acid buffer solution

Site Name Holly Lake, Center

Date: 10/13/2021

Storet G4NW0517

Field ID G4NW0517

Project: SMP/ TMDL Studies

Visit ID 83359

RQ: 2021-08-09-28

Macro ID 11984

LIMS ID: 2283514

HA ID 17050

WBID: 266B

☒ LVI

☒ Sample Site Created in SBIO

☒ Phys/Chem entered in SBIO

☒ HA entered in SBIO Initial FB, 10/13/21

☒ Date and Initial QA: SS, 10/28/21 HA Score 86

☒ LVI entered in SBIO Initial FB, 10/13/21

☒ Date and Initial QA: MK, 01/20/22

☒ Plants getting verified

☒ Date submitted: In House

☐ Plants verified

☐ Date returned:

☒ Macro ID authorized in SBIO

☒ Date and Initial: 01/20/22 MK

☒ Macro ID score: 69

☒ If SMP, scanned into database

Notes:

Private property. Access via Twin Lakes Resort Campground.

Kirsten O'Neill. Oneillkirstan@gmail.com

DEP FORM FD 9000-31: LAKE OBSERVATION FIELD SHEET

SAMPLE ID: 83359 **MACROPHYTE ID:** _____ LATITUDE: N ~~30.78356~~ 30.77730

COUNTY: Walton (Defuniak Springs) STORET #: G4NW0517 LONGITUDE: W ~~86.18958~~ 86.17570

DATE: 10/13/2021 TIME: 11:55 CT2 SAMPLING AGENCY: FL DEP - NWROC

SITE NAME: Holly Lake WBID: 266B

FIELD ID/NAME: G4NW0517 LAKE SIZE: ~~230~~ RQ: 2021-08-09-28

LIMS: 2283514

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)
	X	X	X	X		X	RV Park, Sand Mine

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 13	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
	20 19 18 17 16	15 14 **13** 12 11	10 9 8 7 6	5 4 3 2 1
LAKESIDE ALTERATIONS 13	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)
	20 19 18 17 16	15 14 **13** 12 11	10 9 8 7 6	5 4 3 2 1
BUFFER ZONE 15	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
	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 ☐ 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:	0.3	27	5.69	7.96	100.3	18.2	0.01
Mid-Depth:	2.0	26.7	5.67	7.9	98.9	18.1	0.01
Bottom :	2.4	26.7	5.58	7.78	97.2	18.1	0.01

Meter ID: 155077

Clarity: ☐ Clear ☐ Opaque ☐ Turbid ☒ Slightly Turbid

Color: ☐ Clear ☐ Tannic ☒ Green

SECCHI (M) 2.6 VOB ☐

Total Station Depth (M) 2.9

Sediment Type: (may check more than one) Sample Taken? ☐ Yes ☒ No

☐ 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:

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

Additional Notes:
Recently stocked with shad, sunfish. Fish feeders added to enhance fishing.

Weather Conditions : Sunny, 80's. No rain last 6 days.

SAMPLING TEAM: Frank Butler, Mike King **SIGNATURE:** _____ **DATE:** 10/13/2021

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

STORET STATION NUMBER: G4NW0517	DATE (M/D/Y): 10/12/2021	LAKE NAME: Holly Lake	FIELD ID / NAME: G4NW0517
WBID: 266B	COUNTY: Walton	SAMPLING LOCATION/DESCRIPTION: Twin Lakes Camp Resort.	LAKE SIZE: 229 acres/ 93 Hectares

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	Impounded, hydrology of system artificially controlled
HYDROLOGY	☐	☐	☐	☒
Color	Very clear, uncolored water (benthic sampling appropriate) ☐	Water somewhat tannin stained (benthic sampling appropriate) ☒ Green	Dark, discolored water (water color 20 PCU or higher) ☐	Visibility extremely reduced due to high color ☐

	Optimal					Suboptimal					Marginal					Poor				
Secchi 14	Secchi >3 m		Secchi(m)			3	2.6	2.2	1.8	1.4	1.0	0.9	0.8	0.7	0.6	0.5	0.4	0.3	0.2	0.1
	Or VOB	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
Vegetation Quality 12	Diverse, expected native vegetation (emergent or submersed), less than 5% nuisance taxa					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					Lake choked (>40%) with nuisance macrophytes (duck-weed, hyacinth, etc.) or algal mats, or few plants present at all (e.g., plants removed)				
	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
Stormwater Inputs 13	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 Construction in 2					Much direct input of stormwater (ditches, pipes, cultivated vegetation > 51%) and no or ineffective BMPs in place				
	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
Bottom Substrate Quality 9 PS ~~12~~	Diverse mixture of sand, detritus, with small amounts of CPOM/mud/muck. SAV may be present					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 Plants					Thick deposits of CPOM, or fine detritus and anaerobic muck/mud/silt, or algal growth or nuisance plants (Hydrilla) cover bottom				
	20	19	18	17	16	15	14	13	~~12~~	11	10	9	8	7	6	5	4	3	2	1
Lakeside Adverse Human Alternations 13	Very few man-made structures, roads, or other disturbance adjacent to lake (<10%)					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)				
	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
Upland Buffer Zone 15	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				
	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
Adverse Watershed Land Use 10	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 Sand mine																			
	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1

TOTAL SCORE: 86	COMMENTS:

ANALYSIS DATE: 10/13/2021	ANALYST: F. Butera	SIGNATURE:

SBIO Sample ID: 83359 HA ID: 17050 QC✓: _____

DEP FORM FD 9000-27 LAKE VEGETATION INDEX FIELD SHEET

Waterbody: Holly Lake	County: Walton (Defuniak Springs)	Date: 10/13/2021
Analyst: F Butler	Signature:	STORET: G4NW0517

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

SBIO ID 83359 SPECIES	2	5	8	11	Collected? (√)
Acer rubrum					
Alternanthera philoxeroides					
Andropogon sp.					
Azolla filiculoides (A. caroliniana)					
Baccharis sp.					
Bacopa caroliniana	C	C			
Bacopa monnieri					
Bidens laevis					
Bidens mitis					
Blechnum serrulatum					
Boehmeria cylindrica					
Brasenia schreberi					
Cabomba caroliniana					
Casuarina equisitifolia					
Centella asiatica					
Cephalanthus occidentalis					
Ceratophyllum demersum					
Chara sp.					
Cladium jamaicense					
Cliftonia monophylla					
Colocasia esculenta					
*Commelina _____					
Crinum americanum					
***Cyperus alternifolius** (C. involucratus)					
Cyperus articulatus					
Cyperus haspan					
*Cyperus lecontei					
*Cyperus polystachyos					
*Cyperus odoratus					
*Cyperus surinamensis					
Cyrilla racemiflora					
Decodon verticillatus					
Diodia virginiana					
*Echinochloa crus-galli					
*Echinochloa muricatum					
Echinochloa walteri					
Eclipta prostrata (E. alba)					
Egeria densa					
Eichhornia crassipes					
*Eleocharis baldwinii					
*Eleocharis _____					
Eleocharis cellulosa					
Eleocharis equisetoides					
Eleocharis interstincta					
*Eriocaulon compressum					
*Eriocaulon decangulare					
Eupatorium capillifolium					
*Fuirena _____					
Fuirena scirpoidea					
Gordonia lasianthus					
LIMS ID:					

Macro ID _____ SPECIES	2	5	8	11	Collected? (√)
Habenaria repens					
Hydrilla verticillata					
Hydrocotyle sp.					
Hygrophila polysperma					
*Hypericum fasciculatum					
*Hypericum hypericoides					
*Hypericum ~~myrtifolium~~ brachy					
Ilex cassine					
Ipomoea aquatica					
Ipomoea sagittata					
Itea virginica					
Juncus effusus					
*Juncus marginatus					
*Juncus ~~megacephalus~~ pathycephalus					C FS
Juncus repens					
*Juncus scirpoides					
Lachnanthes caroliniana					
Leersia hexandra					
Landoltia punctata (Spiro. punctata)					
Lemna sp.					
Leucothoe racemosa (E. racemosa)					
Limnobium spongia					
Limnophila sessiliflora					
Liquidamber styraciflua					
*Ludwigia arcuata					
*Ludwigia leptocarpa					
*Ludwigia linearis					
*Ludwigia octovalvis					
***Ludwigia peruviana**					
*Ludwigia repens					
*Ludwigia _____					
Luziola fluitans (H. carolinensis)					
Lyonia lucida					
Magnolia virginiana					
Mayaca fluviatilis					
Melaleuca quinquenervia					
Micranthemum glomeratum					
Micranthemum umbrosum					
Mikania scandens					
Mimosa pigra					
Myrica cerifera					
~~H. P.~~ brachy					
Eriocaulon sinense					
Rhynchospora tenuis Juncus					✓
Ericaceae					✓
Cyperus					✓
Dichanthelium					
Hydrocotyle umbrosa					✓

FORM FD 9000-27: LAKE VEGETATION INDEX FIELD SHEET

Waterbody: Holly Lake Storet: G4NW0517 Date: 10/13/2021 SBIO ID 83359 Macro ID

SPECIES	2	5	8	11	Collected? (√)
Myriophyllum aquaticum					
*Myriophyllum heterophyllum	1				
*Myriophyllum laxum					
*Myriophyllum pinnatum					
Myriophyllum spicatum				1	✓
*Najas filifolia					
*Najas guadalupensis					
*Najas minor					
Nelumbo lutea					
Nitella spp.					
Nuphar sp.					
Nymphaea odorata	1	1	1	1	
Nymphoides aquatica	1	1	1	1	
Nyssa sylvatica var. biflora	1	1		1	
Orontium aquaticum					
Osmunda cinnamomea					
Osmunda regalis					
Panicum hemitomon	1	1	1	1	
Panicum repens	1	1	1	1	
Paspalidium geminatum					
*Paspalum repens		1			
Paspalum urvillei	1				
Peltandra sp.					
Persea sp.					
Pennisetum purpureum					
Phragmites australis					
Pinus elliottii					
Pistia stratioides					
Pluchea sp.					
*Polygonum glabrum (densiflorum)					
*Polygonum hydropiperoides					
*Polygonum punctatum					
*Polygonum _____					
Pontederia cordata					
*Potamogeton diversifolius					
*Potamogeton illinoensis					
*Potamogeton pusillus					
*Potamogeton pectinatus (Stuck. pectinatus)					
Proserpinaca pectinata					
*Rhexia _____					
*Rhynchospora corniculata					
*Rhynchospora inundata			1		✓
Rhynochospora tracyi					
Ricciocarpus natans					
Sabal palmetto					
Sacciolepis striata	1			1	
*Sagittaria filiformis					
*Sagittaria graminea					
*Sagittaria isoetiformis					
Sagittaria lancifolia					
Sagittaria latifolia					
Smartweed sp.		1	1	1	
		1	1		

SPECIES	2	5	8	11	Collected? (√)
Salix caroliniana					
Salvinia minima					
Sambucus canadensis					
Sapium sebiferum	1	1			
Saururus cernuus					
Schinus terebinthifolius					
*Schoenoplectus californicus					
*Schoenoplectus pungens					
*Schoenoplectus tabernaemontani					
Scirpus cubensis (Oxycaryon cubense)					
Scirpus cyperinus	1		1		
*Sesbania _____					
Solidago sp.	1	1	1	1	
Sparganium americanum					
Spartina bakeri					
Spirodela polyrhiza					
Taxodium sp.	1			1	
Thalia geniculata					
Thelypteris palustris					
Triadenum virginicum	1	1	1		
Typha sp.	1	1	1		
Urochloa mutica (Brachiaria mutica)					
*Utricularia gibba (U. biflora)					
*Utricularia floridana	1	1	1	1	
*Utricularia foliosa					
*Utricularia inflata					
*Utricularia purpurea					
*Utricularia cornuta					
*Utricularia radiata					
Vallisneria americana					
*Websteria confervoides		1			
Wedelia trilobata (Sphag. trilobata)					
Wolffiella spp.					
Woodwardia ~~virginica~~ areolata		1			
Xyris sp.	1	1	1	1	
Zizania aquatica					
Zizaniopsis milacea					
Rubus		1			
~~Purple Fruited (Asteriad)~~		1			
~~Zizania aquatica~~		1			
Oxycaryon cubensis	1	1			
Atlantic White Cedar	1			1	
White Flower Grass	1		1		
~~Parrot feather~~ Pampas Grass	1			1	

*Schoenoplectus tabernaemontani = Scirpus validus

DEP-SOP-001/01
FS 7000 General Biological Community Sampling

Form FD 9000-2: COMPOSITE LAKE SAMPLING SHEET (< 1000 ACRES)

Date: 10/13/2021	Name of Lake: Holly Lake	Gear used: PONAR	EKMAN	OTHER
Comments:				

Drop #	Depth (m)	Sediment Type (circle all that apply)	Drop #	Depth (m)	Sediment Type (circle all that apply)
1		construction sand, silt/clay, CPOM, muck, SAV	7		sand, silt/clay, CPOM, muck, SAV
2	3.2	sand, silt/clay, CPOM, muck, SAV	8	3.2	sand, silt/clay, CPOM, muck, SAV
3	2.9	sand, silt/clay, CPOM, muck, SAV	9		sand, silt/clay, CPOM, muck, SAV
4		sand, silt/clay, CPOM, muck, SAV	10		sand, silt/clay, CPOM, muck, SAV
5	7.2	sand, silt/clay, CPOM, muck, SAV	11	3.2	sand, silt/clay, CPOM, muck, SAV
6		sand, silt/clay, CPOM, muck, SAV	12		sand, silt/clay, CPOM, muck, SAV

2m bottom — 7ft — 7ft — 3-4m

CPOM = coarse particulate organic matter; SAV = submerged aquatic vegetation

Storet G4NW0517 Field ID G4NW0517 Project. SMP Development / TMDL Studies SBIO ID: 83359
WBID 266B

Pics
- Frothy
- Sed. 8
- Sed. 8

Paste map here and show location of each dredge drop and where water chemistry parameters were collected.

Revision Date: February 1, 2004

Photo Log
Win ID / Storet: G4NW0517
Station Name: Holly Lake
Date: 10-13-2021
Samplers. F. Butra, M. King

1 Frotus
2 Sect. 8 - A
3 Sect. 8 - B
4
5
6
7
8
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10
11
12
13
14
15
16
17

F.3L Feeder

11

Notes.

Station: Holly Lake
GPS Dec. 30.77730 x -86.17570
Storet: G4NW0517 WBID 266A
Sample ID: 83359 Macro ID: 11984
RQ-2021-08-09-28

Sampled: 10/13/2021
Sampled By. F.Butera, M. King
Location. Defuniak Springs, Walton
Receiving Waters: Narrow's Creek. Basin: Yellow River
LIMS ID: 2283514

	Taxa	2	5	8	11	Coll.	Verified
1	*Acer rubrum*	1	1	1	1		
2	*Agalinis fasciculata*	1	1			Y	Pressed
3	*Andropogon* sp.		1	1	1		
4	*Bacopa caroliniana*	C	C	1	1		
5	*Bidens mitis*	1	1	1	1		
6	*Brasenia schreberi*			1	1		
7	*Chamaecyparis thyoides*	1			1		
8	*Colocasia esculenta*				1		
9	*Cyperus blepharoleptos* *	1	1				
10	*Cyrilla racemiflora*	1	1	1	1		
11	*Dichanthelium scabriusculum*		1	1			
12	*Eleocharis baldwinii*	1	1	1	1		
13	*Eleocharis* sp.		1				
14	Ericaceae (Undetermined)	1			1	Y	FB Lab
15	*Eriocaulon lineare*		1		1		
16	*Eupatorium capillifolium*	1	1		1		
17	*Fuirena scirpoidea*		1	1			
18	*Hedychium coronarium*	1					
19	*Hydrocotyle* sp.	1	1	1	1		
20	*Hypericum brachyphyllum*	1	1		1		
21	*Hypericum hypercoides*	1	1	1	1		
22	*Juncus polycephalus*				1	Y	FB Lab
23	*Ludwigia leptocarpa*	1	1	1	1		
24	*Lycopus* sp.	1	1	1	1	Y	Pressed
25	*Mayaca fluviatilis*		1	1	1		
26	*Myrica cerifera*	1	1	1	1		
27	*Myriophyllum heterophyllum*	1					
28	*Myriophyllum spicatum*				1	Y	Pressed
29	*Nymphaea odorata*	1	1	1	1		
30	*Nymphoides aquatica*	1	1	1	1		
31	*Nyssa sylvatica* var. *biflora*	1	1		1		
32	*Panicum hemitomon*	1	1	1	1		
33	*Panicum repens*	1	1	1	1		
34	*Paspalum* urvillei	1					
35	*Rhynchospora inundata*			1		Y	FB Lab
36	*Rhynochospora* sp.				1	Y	Pressed
37	*Rubus* sp.		1				
38	*Saccharum coarctatum*		1	1	1		
39	*Sacciolepis striata*	1			1		
40	*Sapium sebiferum*	1	1				
41	*Scirpus cyperinus*			1			
42	*Solidago* sp.	1	1	1	1		
43	*Taxodium* sp.	1			1		
44	*Triadenum virginicum*	1	1	1			
45	*Typha* sp.	1	1	1			
46	*Utricularia floridana*	C	C	D	D		
47	*Websteria confervoides*		1				
48	*Woodwardia areolata*		1				

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	Taxa	**2**	**5**	**8**	**11**	Coll.	Verified
49	*Xyris* sp.	**1**	**1**	**1**	**1**		
	Taxa per section	30	34	27	32	Herb. Taxa	38
	Exotic Present	5	3	1	3	Woody Taxa	8
	Avg. taxa per section	31				Ferns	1
	sections with exotics	4				Macro Algae	0
	Exotic Taxa	7	Exotics per Section: 3.0			Total Taxa	47

Metric	Rep. 1	Rep. 2	Rep. 3	Rep. 4	LVI Average
LVI 2012	65	65	71	76	69
Native Percentage	86.67	88.24	96.15	90.32	90.35
FLEPPC Pct (Exotic)	6.67	5.88	3.85	6.45	5.71
Total Taxa	30	34	26	31	47
C of C over 7.0	13.33	11.76	7.69	19.35	13.03
Dominant Taxa	B. caroliniana/ U. floridana	B. caroliniana/ U. floridana	Utrichularia floridana	Utrichularia floridana	B. caroliniana/ U. floridana
C of C Dominant	5.42	5.42	6.34	6.34	5.88

Seen but not counted (Not approp. For LVI or Not in surveyed segment)

Taxon	1	4	7	10
Filamentous green algae	1	1	1	1
Cortaderia selloana Pampas Grass				1
Taxodium sp.			Sect. 6	
Vitis sp.	1	1	1	1