



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2019

Data Qualified?

Yes / No

WIN Station Name: Lake Hanna

Date: 05/22/2019
(mm/dd/yyyy)

WIN/ Field ID: _____

WBID: 1451 T

Latitude: _____

(Decimal Degrees)

County: Hillsborough

ORG ID: 21FLTPA

Longitude: _____

(Decimal Degrees)

Receiving Body of Water: _____

RQ-2019- 05-10-06

Sampling Team Members					WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
Ben Paswater					☒	☒	☒	☒	☒
Judy Ashton					☒	☒	☒	☒	☒
Sarah Meyer					☒	☒	☒	☒	☒

Sampling Equipment		
☒ Sample Container	☐ Van Dorn	☐ Pole
☐ Carboy	☐ Syringe	
☐ Dipper	☐ Other	
Depth Measured with: Secchi		
Equipment ID: Secchi #1		
Collection Method		
☐ Wading	☒ Canoe/Kayak	
☐ From Shore	☒ Electric Motor	
☐ Other	☐ Gasoline Motor	

Water Level: Dry/ Pooled/ Low / Normal / High / Flooded
Photos: Yes / No Flow: No Flow / Interstitial / Flowing NA Tide: Rising/ Falling/ Slack NA Tide Times: High _____ Low _____
Meter ID# Chewy Matrix: Fresh Marine/ DI

Time Zone	Time	Total Depth (m)	Sample Depth (m)	Secchi Disk (m)	DO (mg/L)	DO (%SAT)	pH	Salinity (PPT)	Sp COND (µmhos/cm)	Temp. (C°)
EST	1015	1.4	0.3	1.48	6.91	91.2	7.04	0.10	214	30.0

Biological Samples Collected: None HA SCI RPS Algae ID LVS LVI Other: _____

SBIO ID Numbers: SBIO-ID: 79700 HA-ID: 15960 RPS-ID: _____ Macrophyte-ID: 11321 LIMS#: 2088547

Parameter Suite	Parameter Methods	Preservation	Lot#	Expiration	pH Check
Preserved Nutrients	☒ W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP	☒ Ice ☒ H2SO4	<u>SA8344070</u>	<u>12/10/19</u>	☒ <2
Metals	☐ W-ICPMS ☐ W-ICP	☐ Ice ☐ HNO3			☐ <2
Filtered Nutrients	☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter	☐ Ice			
Chlorophyll	☐ CHLSUITE-W	☐ Ice			
Physical/Aggregate (Fresh)	☐ Alkalinity / W-F / W-TSS / TURBIDITY / W-Cl-IC / W-COLOR / W-SO4-IC / W-TDS	☐ Ice			
Physical/Aggregate (Marine)	☐ Alkalinity / W-BR-IC / W-F / W-TSS / TURBIDITY	☐ Ice			
Macroinvertebrates	☐ MI-FW-QLDC	☐ Formalin			
Periphyton	☐ ALGAE-ID	☐ Ice			
Microbiology	☐ E Coli ☐ F Coli ☐ Enterococci	☐ Ice			
Molecular	☐ PCR-FILTER ☐ PCR-BacR ☐ PCR-GULL2 ☐ PCR-HF183 ☐ PCR-DG3 ☐ PCR-GFD	☐ Ice			
Tracers	☐ W-E8321-DI ☐ W-E8321-MS	☐ Ice			
Pesticides	☐ W-PSNP-TQ ☐ W-CT-CL-R ☐ W-E8321-DI ☐ W-PCL-SQ-R ☐ W-E8321-MS ☐ W-CARB-AA	☐ Ice			
Phytoplankton	☐ DTY-QN-C ☐ PKD-QN-C				

Notes: _____

Field ID/WIN G2SW0078

Site Name: Lake Hanna @ Center

Signature: Sarah Meyer Date: 05/22/2019

LIMS EVENT ID: 2019-05-23-01 WIN Import ID: 14323
Enter Field Parameters, Verify Station ID In LIMS DMT: SM 05/28/2019 QC Station ID, Field Parameters In LIMS DMT: SM 06/13/2019
Scan/Save Field Sheets SM 01/15/2020 Migrate Data to WIN: SM 09/03/2019 Verify Data In WIN: SM 01/15/2020
(Initials/Date) (Initials/Date) (Initials/Date)



Site Name: Lake Hanna @ Center

Waterbody: <u>Lake Hanna</u>	County: <u>Hillsborough</u>
Signature: <u>Sarah Myers</u>	Date: <u>05/22/2019</u>
equipped. *Genera that may require lab verification*	
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 (A-F)	2	5	8	11	Collected? (✓)	SPECIES (G-L)	2	5	8	11	Collected? (✓)
Acer rubrum						Gordonia lasianthus					
Alternanthera philoxeroides						Habenaria repens					
Andropogon sp.						Hymenachne amplexicaulis					
Azolla filiculoides (A. caroliniana)						Hydrilla verticillata					
Baccharis sp.						Hydrocotyle sp.					
Bacopa caroliniana						Hygrophila polysperma					
Bacopa monnieri						*Hypericum fasciculatum					
Bidens laevis						*Hypericum hypericoides					
Bidens mitis						*Hypericum myrtifolium					
Blechnum serrulatum						Ilex cassine					
Boehmeria cylindrica						Ipomoea aquatica					
Brasenia schreberi						Ipomoea sagittata					
Cabomba caroliniana						Itea virginica					
Casuarina equisetifolia						Juncus effusus					
Centella asiatica						*Juncus marginatus					
Cephalanthus occidentalis						*Juncus megacephalus					
Ceratophyllum demersum						Juncus repens					
Chara sp.						*Juncus scirpoides					
Cladium jamaicense						Lachnanthes caroliniana					
Cliftonia monophylla						Leersia hexandra					
Colocasia esculenta						Landoltia punctata (Spirodela punctata)					
*Commelina						Lemna sp.					
Crinum americanum						Leucothoe racemosa (Eubotrys racemosa)					
*Cyperus alternifolius (C. involucratus)						Limnium spongia					
Cyperus articulatus						Limnophila sessiliflora					
Cyperus haspan						Liquidambar styraciflua					
*Cyperus lecontei						*Ludwigia arcuata					
*Cyperus polystachyos						*Ludwigia leptocarpa					
*Cyperus odoratus						*Ludwigia linearis					
*Cyperus surinamensis						*Ludwigia octovalvis					
Cyrilla racemiflora						*Ludwigia peruviana					
Decodon verticillatus						*Ludwigia repens					
Diodia virginiana						*Ludwigia					
*Echinochloa crus-galli						Luziola fluitans (Hydrochloa carolinensis)					
*Echinochloa muricatum						Lyonia lucida					
Echinochloa walteri						<u>Carex longia abolute scense</u>					
Eclipta prostrata (E. alba)						<u>Cylindrica imperata</u>					
Egeria densa						<u>Cinammia camphora</u>					
Eichhornia crassipes						<u>Ipomea sp.</u>					
*Eleocharis baldwinii											
*Eleocharis											
Eleocharis cellulosa											
Eleocharis equisetoides											
Eleocharis interstincta											
*Eriocaulon compressum											
*Eriocaulon decangulare											
Eupatorium capillifolium											
*Fuirena											
Fuirena scirpoidea											

Site:					Date: 5-22-19						
SPECIES (M-P)	2	5	8	11	Collected? (✓)	SPECIES (R-Z)	2	5	8	11	Collected? (✓)
Magnolia virginiana						*Rhexia					
Mayaca fluviatilis						*Rhynchospora corniculata					
Melaleuca quinquenervia	X	X	X	X		*Rhynchospora inundata					
Micranthemum glomeratum						Rhynchospora tracyi					
Micranthemum umbrosum						Ricciocarpus natans					
Mikania scandens	X	X				Sabal palmetto		X			
Mimosa pigra						Sacciolepis striata					
Myrica cerifera	X	X	X			*Sagittaria filiformis					
Myriophyllum aquaticum						*Sagittaria graminea					
*Myriophyllum heterophyllum						*Sagittaria isoetiformis					
*Myriophyllum laxum						Sagittaria lancifolia				X	
*Myriophyllum pinnatum						Sagittaria latifolia					
Myriophyllum spicatum						Salix caroliniana	X	X	X	X	
*Najas filifolia						Salvinia minima	X	X	X	X	
*Najas guadalupensis						Sambucus canadensis					
*Najas minor						Sapium sebiferum	X	X	X	X	
Nelumbo lutea						Saururus cernuus					
Nitella spp.						Schinus terebinthifolius			X		
Nuphar sp.	X	X	X	X		*Schoenoplectus californicus (Cali bulrush)					
Nymphaea odorata						*Schoenoplectus pungens (three square)					
Nymphoides aquatica						*Schoenoplectus tabernaemontani (softstem)					
Nyssa sylvatica var. biflora						Scirpus cubensis (Oxycaryon cubense)	X	X	X	X	
Orontium aquaticum						Scirpus cyperinus					
Osmunda cinnamomea						*Sesbania <i>purpurea</i>	X				
Osmunda regalis						Solidago sp.					
Panicum hemitomon	X	X				Sparganium americanum					
Panicum repens	X	X				Spartina bakeri					
Paspalidium geminatum						Sphagneticola trilobata (Wedelia)					
*Paspalum repens						Spirodela polyrhiza					
Paspalum urvillei						Taxodium sp.	X	X	X	X	
Peltandra sp.						Thalia geniculata					
Persea sp.						Thelypteris palustris					
Pennisetum purpureum						Triadenum virginicum					
Phragmites australis						Typha sp.	X	X	X	X	
Pinus elliotii		X				Urochloa mutica (Brachiaria mutica)	X	X	X	X	
Pistia stratioides						*Utricularia gibba (U. biflora)	X	X			
Pluchea sp.						*Utricularia floridana					
*Polygonum glabrum (densiflorum)				X		*Utricularia foliosa					
*Polygonum hydropiperoides						*Utricularia inflata					
*Polygonum punctatum	X					*Utricularia purpurea					
*Polygonum sp.	X					*Utricularia cornuta					
Pontederia cordata	X	X				*Utricularia radiata					
*Potamogeton diversifolius						Vallisneria americana					
*Potamogeton illinoensis						*Websteria confervoides					
*Potamogeton pusillus						Wolffiella spp.					
*Potamogeton pectinatus						Woodwardia virginica					
Proserpinaca pectinata						Xyris sp.					
						Zizania aquatica					
						Zizaniopsis milacea					
						<i>Setaria Sacciolepis indica</i>	X				✓
						Mock Bishop Weed <i>Phytolacca</i>	X				
						<i>Ruellia mexicana simplex</i>			X	X	

LVI Map for , WBID 1451T

Lake Hanna



Site Name: Lake Hanna @ Center

LATITUDE: _____

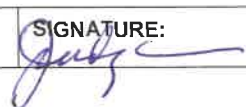
LONGITUDE: _____

SAMPLING AGENCY: FLDEP SW ROC

WATERSHED / LAKESIDE FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category – from GIS):				LANDSCAPE DEVELOPMENT INTENSITY (100 m buffer)			
Forest/Natural <u>20</u>	Silviculture <u>10</u>	Field/Pasture <u>5</u>	Agricultural <u>1</u>	Residential <u>55</u>	Commercial <u>1</u>	Industrial <u>1</u>	Other (Specify) <u>1</u>
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 <u>15</u>		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	
20 19 18 17 16		15 14 13 12 11		10 9 8 7 6		5 4 3 2 1	
LAKESIDE ALTERATIONS <u>13</u>		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)	
20 19 18 17 16		15 14 13 12 11		10 9 8 7 6		5 4 3 2 1	
BUFFER ZONE <u>15</u>		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	
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:						Water Odors: ☒ Normal		
Nutrient Sample Taken? ☒ Yes ☐ No Preserved? ☒ Yes ☐ No pH<2 ☐ No						☐ Sewage ☐ Petroleum ☐ Other _____		
Color Sample Taken? ☒ Yes ☐ No Lot # _____ Exp. Date: _____						Water Surface Oils: ☒ None		
Alkalinity Sample Taken? ☒ Yes ☐ No						☐ Sheen/Slick ☐ Glob ☐ Other _____		
Water Level ☐ Low ☒ Normal ☐ High								
Meter		Depth (M)	Temp. (°C)	pH (SU)	D.O. (MG/L)	D.O. Sat. (%)	Cond. (UMHO/CM)	Salinity (PPT)
Readings:		Top: <u>0.3</u>	<u>30.0</u>	<u>7.04</u>	<u>6.91</u>	<u>91.2</u>	<u>214</u>	<u>0.10</u>
Mid-Depth:								
Bottom:								
Meter ID:								
Sediment Type: (may check more than one)						Sediment Odors:		
☒ Sandy ☐ Organic fibrous (peaty, CPOM) ☐ Vegetated						☒ Normal ☐ Other (Specify): _____		
☐ Sand/Silt ☐ Organic smooth (muck) ☐ Other (Specify): _____						☐ Anaerobic		
Biological Communities:						Abundance:		
LVI Conducted? ☒ Yes ☐ No						Absent Rare Common Abundant		
Phytoplankton Sample Taken? ☐ Yes ☒ No						Periphyton ☐ ☐ ☒ ☒		
Sample Preserved? ☐ Yes ☐ No						Nuisance Plants ☐ ☐ ☒ ☐		
Lot #: _____ Exp Date: _____						Submersed Plants ☐ ☒ ☐ ☐		
Algal Bloom/Algal ID Sample Taken? Yes ☐ No ☒						Exotic Apple Snails ☐ ☐ ☒ ☐		
Active Vegetation Mgmt? ☐ Yes ☐ No ☒ Don't Know								
Weather Conditions:								
SAMPLING TEAM: J. ASHTON, B. PASWITZKI, S. MEYER						SIGNATURE: 		
						DATE: 5-22-19		

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

STORET STATION NUMBER: SEE STICKER UPPER RIGHT	LAKE SIZE:	LAKE NAME										FIELD ID / NAME: PUT STICKER ^									
ECO-REGION:	COUNTY:	SAMPLING LOCATION/DESCRIPTION:																			
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) ☐					Dark, discolored water (water color 20 PCU or higher) ☐					Visibility extremely reduced due to high color ☐									
	Optimal	Suboptimal					Marginal					Poor									
Secchi ☐ 11	Secchi >3 m 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 (duckweed, 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 ☐ 15	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	
Bottom Substrate Quality ☐ 17	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					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 Alterations ☐ 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 ☐ 14	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																				
	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	

TOTAL SCORE	97	COMMENTS:
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ANALYSIS DATE: 5-22-19	ANALYST: JUDY ASHTON, BEN PASIKATIL, SARAH MEYER	SIGNATURE: 
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Florida Department of Environmental Protection

Central Laboratory Submittal Form

LVIs

Customer: SW-DIST

Requester: Judy Ashton

Field Report Prepared By:

Judy Ashton

Project ID: SMP

Collected By: J. Ashton, B. Paswater, S. Meyer

Sampling Agency:

FDLP

Location		☐ Comp	Collection (comp begin or grab)		Eastern	Composite end		Bottle Group(s) (See pg 2)
Field ID/WIN		☒ Grab	Date	Time	Central	Date	Time	
Field ID		Matrix (type, e.g., Salt, Fresh, etc)		Diss. Oxygen	☒ mg/L	Total Res. Chlorine		
WIN					☐ % sat	(mg/L)		
Site Name: Commston Lake @ Center		Temp (C)	31.3	pH	7.15	Sample Depth	0.3	A
Latitude		Salinity (ppt)	0.08	Comments				
Location		☐ Comp	Collection (comp begin or grab)		Eastern	Composite end		Bottle Group(s)
Field ID/WIN		☒ Grab	Date	Time	Central	Date	Time	
Field ID		Matrix (type, e.g., Salt, Fresh, etc)		Diss. Oxygen	☒ mg/L	Total Res. Chlorine		
WIN/S					☐ % sat	(mg/L)		
Site Name: Lake Hanna @ Center		Temp (C)	30.0	pH	7.04	Sample Depth	0.3	A
Latitude		Salinity (ppt)	0.10	Comments				
Location		☐ Comp	Collection (comp begin or grab)		Eastern	Composite end		Bottle Group(s)
Field ID		☐ Grab	Date	Time	Central	Date	Time	
WIN/STORET #		Matrix (type, e.g., Salt, Fresh, etc)		Diss. Oxygen	☐ mg/L	Total Res. Chlorine		
Latitude					☐ % sat	(mg/L)		
Longitude		Temp (C)		pH		Sample Depth		
Longitude		Salinity (ppt)		Comments				
Location		☐ Comp	Collection (comp begin or grab)		Eastern	Composite end		Bottle Group(s)
Field ID		☐ Grab	Date	Time	Central	Date	Time	
WIN/STORET #		Matrix (type, e.g., Salt, Fresh, etc)		Diss. Oxygen	☐ mg/L	Total Res. Chlorine		
Latitude					☐ % sat	(mg/L)		
Longitude		Temp (C)		pH		Sample Depth		
Longitude		Salinity (ppt)		Comments				

Relinquished By:	Date/Time	Shipping Method	Number of Coolers Shipped:	Received By:	Date/Time
<u>J. Ashton</u>	<u>5-22-19 1700</u>	<u>FDLP</u>	<u>1</u>		

Group: A	Bottle Type:	P-1L	# of Bottles: 2	Preservative:	ICE	Enter Number of Bottles Sent to Lab	2
	ALKALINITY						
	TURBIDITY						
	W-CL-IC						
	W-COLOR						
	W-F						
	W-SO4-IC						
	W-TDS						
	W-TSS						
Group: A	Bottle Type:	BP-1L	# of Bottles: 2	Preservative:	ICE	Enter Number of Bottles Sent to Lab	2
	CHLSUITE-W						
Group: A	Bottle Type:	P-500ML	# of Bottles: 2	Preservative:	ICE And H2SO4	Enter Number of Bottles Sent to Lab	2
	W-NH3						
	W-NO2NO3						
	W-S-A-TP						
	W-TKN						
	W-TOC						
Group: A	Bottle Type:	P-125ML	# of Bottles: 2	Preservative:	FILTER-ICE	Enter Number of Bottles Sent to Lab	2
	W-PO4-F						