



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

PAGE ____ OF ____

February 2016

Data Qualified?
Yes / No

RQ-2016-05-09-14

5/19/2016
WBID 1932M

Blue Lake @
Northside



G4SD0122

Field ID

STORET

G4SD0122

Date: _____
(mm/dd/yyyy)

Latitude: _____
(Decimal Degrees)

Longitude: _____
(Decimal Degrees)

ORG ID: 21FLFTM

Receiving Body of Water: NA

Field ID: _____

County: Highland

Sampling Team Members				WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
Corey Anderson					X		X	X
Chase Conley								
Kaitlin DeSeth				X		X		

Sampling Equipment		
☒ Sample Container	☐ Van Dorn	☐ Pole
☐ Carboy	☒ Syringe	
☐ Dipper	☐ Other _____	
Equipment ID _____		
Collection Method		
☐ Wading	Via Boat	
☐ From Shore	☒ Canoe/Kayak	
☐ Other (note below)	☒ Electric Motor	
	☐ Gasoline Motor	

Water Level: Dry / Low / Normal / High / Flooded Matrix: Fresh / Marine / DI
Meter ID# 7 Photos: Yes / No Tide Falling: Yes / No / NA

Time Zone	Time	Sample Depth (m)	Total Depth (m)	DO (mg/L)	DO (%SAT)	pH	Salinity (ppt)	Secchi Disk (m)	Sp COND (umhos/cm)	Temp. (C°)
<u>EST</u>	1010	0.3	5.0	8.2	106	8.2	0.1	3.3	186	28.0
CEN	1015	4.5		4.3	69	7.6	0.1		175	28.0

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

Parameter Suite	Parameter Methods	Preservation	Acid Lot#	Expiration	pH Check
Preserved Nutrients	☒ W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP	☒ Ice ☒ H2SO4	5259020	9/16/16	☒ <2
Metals	☐ W-ICPMS ☐ W-ICP	☐ Ice ☐ HNO2			☐ <2
Filtered Nutrients	☒ W-PO4-F ☒ Field Filtered 0.45 um Filter	☐ Ice	Place Preservative Sticker(s) Here (If Available)		
Chlorophyll	☒ CHLSUITE-W	☒ Ice			
Physical/Aggregate (Kit A/C)	☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-CH-IC / W-COLOR / W-SO4-IC / W-TDS	☒ Ice			
Physical/Aggregate (Kit B/D)	☐ Alkalinity / W-F / W-TSS / TURBIDITY	☐ Ice			
Macroinvertebrates	☐ MI-FW-QLDC	☐ Formalin			
Microbiology	☐ E Coli ☐ F Coli ☐ Enteroc ☐ QPCR	☐ Ice			
Periphyton	☐ ALGAE-ID	☐ Ice			
Pesticides	☐ W-PSNP-TQ ☐ W-AHERB-AA ☐ W-PYR-AA-R ☐ W-PC-AA-SF ☐ W-UHERB-AA ☐ W-GLYPH	☐ Ice ☐ Other			

Notes: _____

Signature: _____ Date: 5/19/16

Field Parameters Entered into LIMS: _____ (Initials/Date)

Field Parameters QC in LIMS: _____ (Initials/Date)

Date Migrated to STORET: _____ (Initials/Date)

Field Sheets Scanned/Saved: _____ (Initials/Date)

5/19/2016
WBID 1932MBlue Lake @
NorthsideG4SD0122
Field IDSTORET
G4SD0122

00-27 LAKE VEGETATION INDEX FIELD SHEET

Analyst: <i>Cory Anderson</i>					County: <i>Highlands</i>					Date: <i>5/19/16</i>				
Signature: <i>[Signature]</i>					STORET:					Lake units sampled (circle one group): 1, 4, 7, 10, 2, 5, 8, 11 (3, 6, 9, 12)				
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.														
SPECIES	3	6	9	12	Collected? (✓)	SPECIES	3	6	9	12	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								
Cyrilla racemiflora						*Ludwigia								
Decodon verticillatus						Luziola 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						Vitis spp	✓		✓					
Eleocharis interstincta						pink climbing aster			✓					
*Eriocaulon compressum						Cyperus spp				✓	✓			
*Eriocaulon decangulare						Polystachos					✓			
Eupatorium capillifolium	✓					Cyperus spp 2 prolifer				✓	✓			
*Fuirena														
Fuirena scirpoidea				✓										
Gordonia lasianthus														

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Northside

10-27: LAKE VEGETATION INDEX FIELD SHEET

Date:											
SPECIES	3	6	9	12	Collected? (✓)	SPECIES	3	6	9	12	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 odorata						*Sesbania					
Nymphoides aquatica						Solidago sp.					
Nyssa sylvatica var. biflora						Sparganium americanum					
Orontium aquaticum						Spartina bakeri					
Osmunda cinnamomea						Spirodela polyrhiza					
Osmunda regalis						Taxodium sp.					✓
Panicum hemitomon	✓	✓		✓		Thalia geniculata					
Panicum repens	✓	✓	✓	✓		Thelypteris palustris				✓	
Paspalidium geminatum						Triadenum virginicum					
*Paspalum repens						Typha sp.	✓		✓	✓	
Paspalum urvillei						Urochloa mutica (Brachiaria mutica)					
Peltandra sp.						*Utricularia gibba (U. biflora)					
Persea sp.						*Utricularia floridana					
Pennisetum purpureum						*Utricularia foliosa					
Phragmites australis						*Utricularia inflata					
Pinus elliotii						*Utricularia purpurea					
Pistia stratioides						*Utricularia cornuta					
Pluchea sp.						*Utricularia radiata					
*Polygonum glabrum (densiflorum)						Vallisneria americana					
*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)											
Proserpinaca pectinata											
*Rhexia											
*Rhynchospora corniculata											
*Rhynchospora inundata											
Rhynchospora tracyi											
Ricciocarpus natans											
Sabal palmetto											
Sacciolepis striata											
*Sagittaria filiformis											
*Sagittaria graminea											
*Sagittaria isoetiformis											
Sagittaria lancifolia											
Sagittaria latifolia											

5/19/2016
WBID 1932MBlue Lake @
Northside

D 9000-6: Lake Habitat Assessment Field Sheet

STORET STATION NUMBER:	DATE (M/D/Y) 5/19/16	LAKE NAME Blue Lake		FIELD ID / NAME:
ECO-REGION:	COUNTY: Highlands	SAMPLING LOCATION/DESCRIPTION:		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 ☐	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	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	3 2.6 2.2 1.8 1.4 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1	1.0 0.9 0.8 0.7 0.6 10 9 8 7 6 5 4 3 2 1	0.5 0.4 0.3 0.2 0.1 5 4 3 2 1
Vegetation Quality	Diverse, expected native vegetation (emergent or submersed), less than 5% nuisance taxa ☒ 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1	Mostly expected native plants, but moderate growths (6%-20% of lake) of nuisance macrophytes, or more than 50% of lake covered with plants ☒ 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1	Large masses (21%-40%) of nuisance macrophytes (e.g., Hydrilla, hyacinth, cattail, etc.) or algal mats ☐ 10 9 8 7 6 5 4 3 2 1	Lake choked (>40%) with nuisance macrophytes (duckweed, hyacinth, etc.) or algal mats, or few plants present at all (e.g., plants removed) ☐ 5 4 3 2 1
Stormwater Inputs	Stormwater enters system via sheet flow over non-cultivated and/or natural vegetation ☒ 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1	Some direct stormwater inputs (ditches, pipes, cultivated vegetation < 10%) but good BMPs in place ☒ 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1	Moderate direct inputs of stormwater (ditches, pipes, cultivated vegetation 11%-50%) but few BMPs in place ☐ 10 9 8 7 6 5 4 3 2 1	Much direct input of stormwater (ditches, pipes, cultivated vegetation > 51%) and no or ineffective BMPs in place ☐ 5 4 3 2 1
Bottom Substrate Quality	Diverse mixture of sand, detritus, with small amounts of CPOM/mud/muck. SAV may be present ☒ 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1	Mixture of sand or clay and detritus with higher % CPOM/mud/muck content. SAV may be present ☒ 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1	Moderate layer of CPOM/mud/muck, or hardpacked sand only, or moderate algal growth (mats or Chara) on bottom ☐ 10 9 8 7 6 5 4 3 2 1	Thick deposits of CPOM, or fine detritus and anaerobic muck/mud/silt, or algal growth or nuisance plants (Hydrilla) cover bottom ☐ 5 4 3 2 1
Lakeside Adverse Human Alternations	Very few man-made structures, roads, or other disturbance adjacent to lake (<10%) ☒ 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1	Moderate disturbance visible (structures, roads or other), 10%-49% lakeside affected ☒ 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1	Many structures, roads or other human disturbance visible (50%-70%) lakeside affected ☐ 10 9 8 7 6 5 4 3 2 1	Highly developed or disturbed (>70% of lakeside affected) ☒ 5 4 3 2 1
Upland Buffer Zone	Expected native vegetation between uplands and littoral zone, greater than 90% of shore with >18 m buffer ☒ 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1	89%-51% of shoreline with >18m buffer or >75% with 10m to 18m buffer ☒ 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1	50%-30% of shoreline with >18m buffer or 50%-74% with 10m to 18m buffer ☐ 10 9 8 7 6 5 4 3 2 1	< 29% of shoreline with >18m buffer ☒ 5 4 3 2 1
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 ☒ 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1			

TOTAL SCORE	84	COMMENTS:
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ANALYSIS DATE: 5/19/16	ANALYST: Corey Andersen	SIGNATURE:
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DEP FORM FD 9000-31: LAKE OBSERVATION F

5/19/2016
WBID 1932MG4SD0122
Field IDSTORET
G4SD0122

SAMPLE ID: _____ MACROPHYTE ID: _____
 COUNTY: _____ STORET #: _____
 DATE: _____ TIME: _____
 SITE NAME: _____
 FIELD ID/NAME: _____

LATITUDE: _____
 LONGITUDE: _____
 SAMPLING AGENCY: _____
 WBID: _____
 LAKE SIZE: _____ RQ: _____

Blue Lake @
Northside

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) ☐					LANDSCAPE DEVELOPMENT INTENSITY (100 m buffer) LDI:				
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 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 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 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 ☐ 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 _____				
Meter Readings: Depth (M) Temp. (°C) pH (SU) D.O. (MG/L) D.O. Sat. (%) Cond. (UMHO/CM) Salinity (PPT) Top: _____ Mid-Depth: _____ Bottom: _____					Water Surface Oils: ☒ None ☐ Sheen/Slick ☐ Glob ☐ Other _____				
Meter ID: _____					Clarity: ☒ Clear ☐ Opaque ☐ Turbid ☐ Slightly Turbid				
Sediment Type: (may check more than one) ☒ 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 ☒ ☐ ☐ ☐				
Weather Conditions :					Additional Notes:				
SAMPLING TEAM: Anderson, Conley, De'Aeth					SIGNATURE:				
					DATE: 5/19/16				

LVI Map for BLUE LAKE, WBID 1932M

