

LVI

Site Name Lake Gleason @ Center Sample Date 7/11/18
WBID 28936 WIN ID 02150114 RQ 2018-05-28-34

	Initial/Date	QC Initial/Date
Water chemistry data to LIMS	KWM JUL 17 2018	LD 8/21/18
Create SBIO station visit	KWM JUL 17 2018	n/a
Vascular Entry (add LIMS ID)	KWM JUL 17 2018	LD 8/21/18
Lake Observation Sheet Entry	KWM JUL 17 2018	LD 8/21/18
Authorize SBIO data	LD 8/21/18	n/a
Scan all sheets to 21FLCEN folder		n/a
LIMS/WIN migration		n/a
File in cabinet		n/a

Comments/notes:



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2018

Data Qualified?

Yes / No

WIN Station Name: Lake Gleason @ Center

Date: 7/11/18
(mm/dd/yyyy)

WIN/ Field ID: G2CE0114

WBID: 2893G

Latitude: 28.891928
(Decimal Degrees)

County: Volusia

ORG ID: 21 FL CEN

Longitude: -81.26495945
(Decimal Degrees)

Receiving Body of Water: _____

RQ-2018- 05-28-36

Sampling Team Members					WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
<u>Left Berman</u> <u>Katie March</u>									

Sampling Equipment		
☒ Sample Container	☐ Van Dorn	☐ Pole
☐ Carboy	☒ Syringe	
☐ Dipper	☐ Other	
Depth Measured with <u>[Secchi Disk Line] / Meter</u>		
Equipment ID <u>[KNOTHEAD (67) / LEADFOOT (NON)]</u>		
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 / Intestinal / Flowing NA Tide: Rising/ Falling/ Slack/ NA
Meter ID# Bottle 67 Matrix: Fresh Marine/ DI
Tide Times: High Low

Time Zone	Time	Total Depth (m)	Sample Depth (m)	Secchi Disk (m)	DO (mg/L)	DO (%SAT)	pH	Salinity (PPT)	Sp COND (umhos/cm)	Temp. (C°)
<u>EST</u>	<u>1145</u>	<u>2.0</u>	<u>0.3</u>	<u>2.0(s)</u>	<u>6.13</u>	<u>81.5</u>	<u>6.87</u>	<u>0.07</u>	<u>157</u>	<u>29.87</u>
<u>CEN</u>			<u>1.5</u>		<u>4.02</u>	<u>51.8</u>	<u>6.63</u>	<u>0.07</u>	<u>159</u>	<u>28.64</u>

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

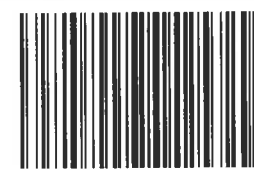
SBIO ID Numbers: SBIO-ID: 78593 HA-ID: _____ RPS-ID: _____ Macrophyte-ID: 10990 LIMS#: 2006737

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>SA8085170</u>	<u>3/24/19</u>	☒ <2
Metals	☐ W-ICPMS ☐ W-ICP	☐ Ice ☐ HNO3			☐ <2
Filtered Nutrients	☒ W-PO4-F ☒ Field Filtered 0.45 um Filter	☐ Ice	<u>13615055</u>		
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-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-HF183 ☐ PCR-BacR ☐ PCR-GULL2 ☐ PCR-GFD	☐ Ice			
Tracers	☐ W-SUC-AA-R ☐ W-UHERB-AA ☐ W-AHERB-AA	☐ Ice			
Pesticides	☐ W-PSNP-TQ ☐ W-UHERB-AA ☐ W-AHERB-AA ☐ W-CARB-AA ☐ W-PCL-SQ-R ☐ W-PYR-AA-R ☐ W-GLYPH ☐ W-SUC-AA-R	☐ Ice ☐ Other			

Notes: _____

WIN ID / Field ID →

Lake Gleason @
Center (2893G)



G2CE0114

Signature: KMarch

Date: 7/11/18

Enter Field Parameters, Verify Station ID in LIMS DMT: KWM JUL 17 2018 QC Station ID, Field Parameters in LIMS DMT: _____

Scan/Save Field Sheets _____ Migrate Data to WIN: _____ Verify Data in WIN: _____

DEP FORM FD 9000-31: LAKE OBSERVATION FIELD SHEET

SAMPLE ID: _____ MACROPHYTE ID: _____ LATITUDE: _____
COUNTY: Volusia STORET #: 626E014 LONGITUDE: _____
DATE: 7/11/18 TIME: _____ SAMPLING AGENCY: _____
SITE NAME: Lake Gleason WBID: 28936
FIELD ID/NAME: _____ LAKE SIZE: _____ RQ: 2018-05-28-36

WATERSHED / LAKESIDE FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category - from GIS) : Forest/Natural <u>5</u> Silviculture _____ Field/Pasture _____ Agricultural _____ Residential <u>95</u> Commercial _____ Industrial _____ Other (Specify) _____					LANDSCAPE DEVELOPMENT INTENSITY (100 m buffer) LDI: _____ 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 <u>4</u>		Stormwater enters system via sheet flow over non-cultivated and/or natural vegetation 20 19 18 17 16		Some direct stormwater inputs (ditches, pipes, cultivated vegetation < 10%) but good BMPs in place 15 14 13 12 11		Moderate direct inputs of stormwater (ditches, pipes, cultivated vegetation 11%-50%) but few BMPs in place 10 9 8 7 6		Much direct input of stormwater (ditches, pipes, cultivated vegetation > 51%) and no or ineffective BMPs in place 5 4 3 2 1	
LAKESIDE ALTERATIONS <u>3</u>		Very few man-made structures, roads, or other disturbance adjacent to lake (<10% lakeside affected) 20 19 18 17 16		Moderate disturbance visible - structures, roads or other (10%-49% lakeside affected) 15 14 13 12 11		Many structures, roads or other human disturbance visible (50%-70% lakeside affected) 10 9 8 7 6		Highly developed or disturbed (>70% of lakeside affected) 5 4 3 2 1	
BUFFER ZONE <u>3</u>		Expected native vegetation between uplands and littoral zone, greater than 90% of shore with >18 m buffer 20 19 18 17 16		89%-51% of shoreline with >18m buffer or >75% with 10m to 18m buffer 15 14 13 12 11		50%-30% of shoreline with >18m buffer or 50%-74% with 10m to 18m buffer 10 9 8 7 6		< 29% of shoreline with >18m buffer 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: <u>0.3</u> <u>29.87</u> <u>6.87</u> <u>6.13</u> <u>81.5</u> <u>157</u> <u>0.07</u> Mid-Depth: _____ Bottom: <u>1.5</u> <u>28.64</u> <u>6.63</u> <u>4.02</u> <u>57.8</u> <u>159</u> <u>0.07</u>					Water Surface Oils: ☒ None ☐ Sheen/Slick ☐ Glob ☐ Other _____									
Meter ID: <u>Betty 67</u>					Clarity: ☒ Clear ☐ Opaque ☐ 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) _____ Total Station Depth (M) <u>2.0</u> VOB ☒									
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 ☐ Don't Know Active Vegetation Mgmt? ☐ Yes ☐ No ☒ Don't Know					Abundance: Absent Rare Common Abundant Periphyton ☐ ☐ ☒ ☐ Nuisance Plants ☐ ☐ ☒ ☐ Submersed Plants ☐ ☐ ☐ ☒ Exotic Apple Snails ☐ ☐ ☒ ☐				
Weather Conditions: <u>Sunny, very hot</u>					Additional Notes: <u>Lots of vegetation, cannot get very close to shore in some sections.</u>									
SAMPLING TEAM: <u>Lif Berman, Katie March</u>					SIGNATURE: <u>KMarch</u> DATE: <u>7/11/18</u>									

DEP FORM FD 9000-27 LAKE VEGETATION INDEX FIELD SHEET

Waterbody: <u>Lake Gleason</u>		County: <u>Volusia</u>		Date: <u>7/11/18</u>							
Analyst: <u>L. Roman K. March</u>		Signature: <u>K March</u>		STORET: <u>GLE0114</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 <u>2, 5, 8, 11</u> 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	2	5	8	11	Collected? (✓)	SPECIES	2	5	8	11	Collected? (✓)
Acer rubrum	/	/	/	/		Fraxinus					
Alternanthera philoxeroides						Fuirena scirpoides	/	/	/	/	
Amaranthus australis						Gordonia lasianthus					
Andropogon sp.						Habenaria repens					
Azolla filiculoides (A. caroliniana)						Hibiscus coccineus					
Baccharis sp.						Hibiscus grandiflora					
Bacopa caroliniana				/		Hydrilla verticillata	/	/	/	/	
Bacopa monnieri						Hydrocotyle sp.	/	/	/	/	
Bidens alba						Hygrophila polysperma					
Bidens laevis						Hymenocallis sp.					
Bidens mitis						*Hypericum fasciculatum					
Blechnum serrulatum						*Hypericum hypericoides					
Boehmeria cylindrica						*Hypericum myrtifolium					
Brasenia schreberi						Ilex cassine					
Cabomba caroliniana						Ipomoea aquatica					
Canna						Ipomoea sagittata					
Centella asiatica						Itea virginica					
Cephalanthus occidentalis	/	/	/	/		Juncus effusus					
Ceratophyllum demersum	/	/	/	/		*Juncus marginatus					
Chara sp.						*Juncus megacephalus					
Cicuta maculata						Juncus repens					
Cinnamomum camphora	/	/	/	/		*Juncus scirpoides					
Cladium jamaicense	/	/	/	/		Lachnanthes caroliniana			/		
Colocasia esculenta						Leersia hexandra					
*Commelina						Landoltia punctata (Spirodela punctata)					
Crinum americanum						Lemna sp.					
*Cyperus alternifolius (C. involucratus)						Leucothoe racemosa (Eubotrys racemosa)					
Cyperus articulatus						Limnium spongia					
Cyperus haspan						Limnophila sessiliflora					
*Cyperus lecontei						Liquidambar styraciflua					
*Cyperus polystachyos						*Ludwigia arcuata					
*Cyperus odoratus				/		*Ludwigia grandiflora					
*Cyperus surinamensis						*Ludwigia hexapetala					
Cyrtilla racemiflora						*Ludwigia leptocarpa					
Decodon verticillatus						Ludwigia (native)					
Diodia virginiana						*Ludwigia octovalvis				/	
*Echinochloa crus-galli						*Ludwigia peruviana	/			/	
*Echinochloa muricatum						*Ludwigia repens					
Echinochloa walteri						Ludwigia suffruticosa					
Eclipta prostrata (E. alba)						Luziola fluitans (Hydrochloa carolinensis)					
Eichhornia crassipes						Magnolia virginiana					
*Eleocharis						Mayaca fluviatilis					
Eleocharis cellulosa						Melaleuca quinquenervia <u>virginialis</u>	/	/	/		
*Eleocharis elongata	/	/	/	/		Micranthemum glomeratum					
Eleocharis equisetoides						Micranthemum umbrosum					
Eleocharis interstincta						Mikania scandens					
Eleocharis submersed viviparous						Mimosa pigra					
*Eriocaulon compressum						Myrica cerifera	/	/	/	/	
*Eriocaulon decangulare											
Eupatorium capillifolium	/	/	/	/							

FORM FD 9000-27: LAKE VEGETATION INDEX FIELD SHEET

Site:						Date:					
SPECIES	2	5	8	11	Collected? (✓)	SPECIES	2	5	8	11	Collected? (✓)
Myriophyllum aquaticum						<i>Salix caroliniana</i>	/	/	/	/	
* <i>Myriophyllum heterophyllum</i>						<i>Salvinia minima</i>	/	/	/	/	
* <i>Myriophyllum laxum</i>						<i>Sambucus canadensis</i>	/	/	/	/	
* <i>Myriophyllum pinnatum</i>						<i>Sapium sebiferum</i>	/	/	/	/	
Myriophyllum spicatum						<i>Saururus cernuus</i>				/	
* <i>Najas filifolia</i>						<i>Schinus terebinthifolius</i>			/		
* <i>Najas guadalupensis</i>	/	/	Ø	/		* <i>Schoenoplectus californicus</i>					
* <i>Najas minor</i>						* <i>Schoenoplectus pungens</i>					
<i>Nelumbo lutea</i>						* <i>Schoenoplectus tabernaemontani</i> (<i>Scirpus validus</i>)					
<i>Nitella</i> spp.						<i>Scirpus cubensis</i> (<i>Oxycaryon cubense</i>)					
<i>Nuphar</i> sp.	/	/	/	/		<i>Scirpus cyperinus</i>					
<i>Nymphaea mexicana</i>						* <i>Sesbania</i>					
<i>Nymphaea odorata</i>	Ø	Ø	/	Ø		<i>Solidago</i> sp.					
<i>Nymphoides aquatica</i>						<i>Sparganium americanum</i>					
<i>Nyssa sylvatica</i> var. <i>biflora</i>						<i>Spartina bakeri</i>					
<i>Orontium aquaticum</i>						<i>Spirodela polyrhiza</i>					
<i>Osmunda cinnamomea</i>						<i>Taxodium</i> sp.					
<i>Osmunda regalis</i>						<i>Thalia geniculata</i>					
<i>Panicum hemitomon</i>		/	/	/		<i>Thelypteris interrupta</i>					
<i>Panicum repens</i>	/	/	/	/		<i>Thelypteris palustris</i>					
<i>Paspalidium geminatum</i>						<i>Triadenum virginicum</i>					
* <i>Paspalum repens</i>						<i>Typha</i> sp.		/	/	/	
<i>Paspalum urvillei</i>				/		<i>Urochloa mutica</i> (<i>Brachiaria mutica</i>)					
<i>Peltandra</i> sp.						* <i>Utricularia gibba</i> (<i>U. biflora</i>)	/	/	/	/	
<i>Persea</i> sp.						* <i>Utricularia foliosa</i>	/	/	/	/	
<i>Pennisetum purpureum</i>						* <i>Utricularia inflata</i>					
<i>Phragmites australis</i>						* <i>Utricularia purpurea</i>					
<i>Pinus elliotii</i>						* <i>Utricularia radiata</i>					
<i>Pistia stratioides</i>						* <i>Utricularia resupinata</i>	/	/	/	/	
<i>Pluchea</i> sp.						<i>Vallisneria americana</i>	/	/	/	/	
* <i>Polygonum glabrum</i> (<i>densiflorum</i>)				/		<i>Vitis</i> sp.		/	/	/	
<i>Polygonum hirsutum</i>						* <i>Websteria confervoides</i>					
* <i>Polygonum hydropiperoides</i>						<i>Wedelia trilobata</i> (<i>Sphagneticola trilobata</i>)		/	/	/	
* <i>Polygonum punctatum</i>						<i>Wolffiella</i> spp.					
* <i>Polygonum</i>						<i>Woodwardia virginica</i>					
<i>Pontederia cordata</i>	/	/	/	/		<i>Xyris</i> sp.					
* <i>Potamogeton diversifolius</i>						<i>Zizania aquatica</i>					
* <i>Potamogeton illinoensis</i>						<i>Zizaniopsis milacea</i>					
* <i>Potamogeton pusillus</i>						<i>Vigna</i>				/	
* <i>Potamogeton pectinatus</i> (<i>Stuckenia pectinatus</i>)											
<i>Proserpinaca pectinata</i>											
* <i>Rhexia</i>											
* <i>Rhynchospora corniculata</i>											
* <i>Rhynchospora inundata</i>											
<i>Rhynchospora nitens</i>											
<i>Ricciocarpus natans</i>											
<i>Sabal palmetto</i>											
<i>Sacciolepis striata</i>											
* <i>Sagittaria filiformis</i>											
* <i>Sagittaria graminea</i>											
* <i>Sagittaria isoetiformis</i>											
<i>Sagittaria lancifolia</i>	/	/	/	/							
<i>Sagittaria latifolia</i>											

LVI Map for Gleason Lake, WBID 2893G

