

LVI

Site Name Lake Barber Sample Date 6/3/19

WBID 3036A1 WIN ID G2UE0209 RQ 2019-05-27-21

	Initial/Date	QC Initial/Date
Water chemistry data to LIMS	KWM JUN 13 2019	LD 07/05/19
Create SBIO station visit	KWM JUN 20 2019	n/a
Vascular Entry (add LIMS ID)	KWM JUN 25 2019	LD 07/05/19
Lake Observation Sheet Entry	KWM JUN 20 2019	LD 07/05/19
Authorize SBIO data	LD 07/05/19	n/a
Scan all sheets to 21FLCEN folder	LD 07/05/19	n/a
LIMS/WIN migration		n/a
File in cabinet		n/a

Comments/notes:

6/18 - station not yet created in WIN, cannot
create in SBIO - km

776.5



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2019

Data Qualified?

Yes / No

WIN Station Name: Lake Barber (George) @ Center

Date: 06/03/2019

WIN ID/ Field ID G2CE0209

WBID: 3036A1

Latitude: 28.50082137

County: Orange

ORG ID: 21FLCEN

Longitude: -81.31957744

Receiving Body of Water: _____

RQ 2019 - 05-27-21

Sampling Team Members		WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check	Duplicate Collection	Blank Collection
Leif Boman			✓			✓		
Katie March		✓		✓		✓		

Sampling Equipment		
☒ Sample Container	☐ Van Dorn	☐ Pole
☐ Carboy	☒ Syringe	
☐ Dipper	☐ Other	

Depth Measured with: Secchi Disk Line / Meter

Equipment ID: Leadfoot, Knothead, Scud/ Bucket, Shrimp/Trap

Collection Method	
☐ Wading	☐ Canoe/Kayak
☐ From Shore	☐ Electric Motor
☐ Other	☒ Gasoline Motor

Water Level: Dry/ Pooled/ Low/ <u>Normal</u> / High/ Flooded	Meter ID# <u>Betty 67</u>	Matrix: <u>Fresh</u> / Marine / DI
Photos: Yes / <u>No</u>	Flow: No Flow / Intestinal / Flowing / <u>NA</u>	Tide: Rising/ Falling/ Slack/ <u>NA</u>
Tide Times: High		Low

Field Sample

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	1125	5.9	0.3	2.4	7.63	102.3	7.55	0.07	149	30.76
GEN			5.4		1.67	21.2	6.44	0.07	144	26.78

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

SBIO ID Numbers: SBIO-ID: 79839 HA-ID: _____ RPS-ID: 11394 Macrophyte-ID: 11394 LIMS#: 2091040

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>SA9010030</u>	<u>4/10/20</u>	☒ <2
Metals	☒ W-ICPMS ☒ W-ICP	☒ Ice ☒ HNO3			☐ <2
Filtered Nutrients	☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter	☒ Ice	<u>13615055</u>		
Chlorophyll	☒ CHLSUITE-W	☒ Ice			
Physical/Aggregate (Fresh)	☒ Alkalinity W-F / W-TSS / TURBIDITY / W-CI-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-E3821-MS ☐ W-E3821-DI	☐ Ice			
Pesticides	☐ W-P5NP-TQ ☐ W-E3821-MS ☐ W-CT-CL-R ☐ W-PCL-SQ-R ☐ W-E3821-DI ☐ W-CARB-AA	☐ Ice			
Phytoplankton	☐ DTY-QN-C ☐ PKD-QN-C	☐ Ice			

QA/QC Sample Information

Duplicate

Time Zone: EST CEN Time: 1130 Field ID: G2CE0209 DUP
(WIN ID_DUP)

WIN DMT Activity ID:

Parameter Suite	Parameter Methods	Preservation	Lot#	Expiration	pH Check
Preserved Nutrients	☒ W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP	☒ Ice ☒ H ₂ SO ₄			☒ < 2
Metals	☒ W-ICPMS ☒ W-ICP	☒ Ice ☒ HNO ₃			☐ < 2
Filtered Nutrients	☒ W-P04-F ☒ Field Filtered 0.45 µm Filter	☒ Ice	13615055		
Chlorophyll	☐ CHLSUITE-W	☐ Ice			
Physical/Aggregate (Fresh)	☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-CL-IC / W-COLOR / W-S04-IC / W-TDS	☒ Ice			
Physical/Aggregate (Marine)	☐ Alkalinity / W-BR-IC / W-F / W-TSS / TURBIDITY	☐ Ice			
Microbiology	☐ E Coli ☐ F Coli ☐ Enterococci				
Molecular	☐ PCR-FILTER ☐ PCR-BacR ☐ PCR-GULL2 ☐ PCR-HF183 ☐ PCR-DG3 ☐ PCR-GFD				
Tracers	☐ W-E3821-MS ☐ W-E3821-DI				
Pesticides	☐ W-PSNP-TQ ☐ W-E3821-DI ☐ W-CT-CL-R ☐ W-PCL-SQ-R ☐ W-E-3821-MS ☐ W-CARB-AA				

Field ID → G2CE0209_DUP
WIN → G2CE0209
Location → Lake Barber (George) @ Center

Blank

Time Zone: EST CEN Time: 1140 Field ID: FB_06032019
(Blank Type_DDMMYYYY)

DI Source: lab Location: Lake Barber
☒ Field Blank ☐ Equipment Blank ☐ Field Cleaned Equipment Blank Equipment ID: D1#6

WIN DMT Blank Batch ID:

Parameter Suite	Parameter Methods	Preservation	Lot#	Expiration	pH Check
Preserved Nutrients	☒ W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP	☒ Ice ☒ H ₂ SO ₄			☐ < 2
Metals	☒ W-ICPMS ☒ W-ICP	☒ Ice ☒ HNO ₃			☐ < 2
Filtered Nutrients	☒ W-P04-F ☒ Field Filtered 0.45 µm Filter	☒ Ice	13615055		
Physical/Aggregate (Fresh)	☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-CL-IC / W-COLOR / W-S04-IC / W-TDS	☒ Ice			
Physical/Aggregate (Marine)	☐ Alkalinity / W-F / W-TSS / TURBIDITY				
Tracers	☐ W-E3821-MS ☐ W-E3821-DI				
Pesticides	☐ W-PSNP-TQ ☐ W-E3821-DI ☐ W-CT-CL-R ☐ W-PCL-SQ-R ☐ W-E3821-MS ☐ W-CARB-AA				

Field ID: FB_06032019

Notes:

Place or Type Label Here

WIN ID / Field ID →

Lake Barber (George)
@ Center

Signature: KMunch Date: 6/3/19


G2CE0209

LIMS EVENT ID: CENT-DIST-2019-06-04-01 WIN Import ID: _____

Enter Field Parameters, Verify Station ID In LIMS DMT: KWM JUN 13 2019 QC Station ID, Field Parameters In LIMS DMT: _____
(Initials/Date) (Initials/Date)

Scan/Save Field Sheets _____ Migrate Data to WIN: _____ Verify Data In WIN: _____
(Initials/Date) (Initials/Date) (Initials/Date)

DEP FORM FD 9000-31: LAKE OBSERVATION FIELD SHEET

SAMPLE ID: _____ **MACROPHYTE ID:** 11394 **LATITUDE:** _____
COUNTY: Orange **STORET #:** 621E0209 **LONGITUDE:** _____
DATE: 6/13/19 **TIME:** _____ **SAMPLING AGENCY:** _____
SITE NAME: Lake Barber @ Center **WBID:** 3036A1
FIELD ID/NAME: _____ **LAKE SIZE:** _____ **RQ:** 2019-05-27-21

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>10</u>		<u>90</u>			
Local Watershed Erosion (select one) : ☐ None ☐ Slight ☐ Moderate ☐ Heavy							LDI: Land Use Source & Year:
Local Watershed NPS Pollution : ☐ No evidence ☐ Slight ☒ Moderate ☐ Heavy							
STORMWATER INPUTS <u>5</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		Much direct input of stormwater (ditches, pipes, cultivated vegetation > 51%) and no or ineffective BMPs in place
	20	19	18	17	16	15	14
LAKESIDE ALTERATIONS <u>5</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)		Highly developed or disturbed (>70% of lakeside affected)
	20	19	18	17	16	15	14
BUFFER ZONE <u>5</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		< 29% of shoreline with >18m buffer
	20	19	18	17	16	15	14

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: Top: <u>0.3</u> <u>30.76</u> <u>7.55</u> <u>7.63</u> <u>102.3</u> <u>149</u> <u>0.07</u> Mid-Depth: _____ Bottom: <u>5.4</u> <u>26.78</u> <u>6.44</u> <u>1.87</u> <u>23.4</u> <u>144</u> <u>0.07</u> Meter ID: <u>Betty67</u>							Water Surface Oils: ☒ None ☐ Sheen/Slick ☐ Glob ☐ Other _____						
Sediment Type: (may check more than one) ☐ Sandy ☐ Organic fibrous (peaty, CPOM) ☐ Vegetated ☒ Sand/Silt ☐ Organic smooth (muck) ☒ Other (Specify): <u>periphyton</u>							Clarity: ☒ Clear ☐ Opaque ☐ Turbid ☐ Slightly Turbid Color: ☐ Clear ☒ Tannic ☐ Green						
Sediment Odors: ☒ Normal ☐ Anaerobic ☐ Other (Specify): _____							SECCHI (M) <u>2.4</u> Total Station Depth (M) <u>5.9</u> VOB ☐						
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:													
Weather Conditions: <u>hot & mostly sunny</u>													
SAMPLING TEAM: <u>Kate March, Leif Boman</u>							SIGNATURE: <u>KMarch</u>						
DATE: <u>6/13/19</u>													

DEP FORM FD 9000-27 LAKE VEGETATION INDEX FIELD SHEET

Waterbody: <u>Lake Barber</u>	County: <u>Orange</u>	Date: <u>6/3/19</u>									
Analyst: <u>Kate March/Leif Boman</u>	Signature: <u>K March</u>	STORET: <u>62LE0209</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 2, 5, 8, 11 <u>3, 6, 9, 12</u>									
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					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				✓	
Cyrilla 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	✓				
*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: Lake BarberDate: 6/3/19

SPECIES	Collected? (✓)	SPECIES	Collected? (✓)
Myriophyllum aquaticum		<i>Salix caroliniana</i>	✓
* <i>Myriophyllum heterophyllum</i>		Salvinia minima	✓
* <i>Myriophyllum laxum</i>		<i>Sambucus canadensis</i>	✓
* <i>Myriophyllum pinnatum</i>		Sapum sebiferum	✓
Myriophyllum spicatum		<i>Saururus cernuus</i>	
* <i>Najas filifolia</i>		Schinus terebinthifolius	
* <i>Najas guadalupensis</i>		* <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>	✓	<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>	
Panicum repens	✓	<i>Thelypteris palustris</i>	
<i>Paspalidium geminatum</i>		<i>Triadenum virginicum</i>	
* <i>Paspalum repens</i>	✓	<i>Typha</i> sp.	✓
<i>Paspalum urvillei</i>		Urochloa mutica (<i>Brachiaria mutica</i>)	✓
<i>Peltandra</i> sp.		* <i>Utricularia gibba</i> (<i>U. biflora</i>)	
<i>Persea</i> sp.		* <i>Utricularia foliosa</i>	
Pennisetum purpureum		* <i>Utricularia inflata</i>	
<i>Phragmites australis</i>		* <i>Utricularia purpurea</i>	
<i>Pinus elliotii</i>		* <i>Utricularia radiata</i>	
Pistia stratioides	✓	* <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>		Wedelia trilobata (<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 LAKE BARBER, WBID 3036A1

