

CALIBRATION AND VERIFICATION LOG (FDEP SOP FT 1000-FT 1500, FD 1000-FD 4000)

Boldly "X" this box if there are qualified data on this page.

Meter ID: Bruce

RQ: 2021-08-09-18

Project: Algae Bloom Reference Lake

- Notes: (1) Always wait for meter to stabilize before recording any readings.
 (2) Report all digits displayed. Do not round before reporting measurements. (See special instructions for depth).
 (3) For Calibrations, record calibrated meter reading. Do not record initial meter reading before calibration.

Temperature (Quarterly) FT 1400

Date of Last Temperature Verification 7/8/21

DO DEP SOP FT 1500	Name	Date	Time CT-ET	Temp °C	Baro-meter mmHg	D.O. Chart mg/L	Meter D.O. mg/L	% DO	Probe Charge	Probe Gain	Pass / Fail	Lab / Field
Calibr.	Bruce Davis	8/12/21	739	22.9	764.1	8.6	8.69	100.5	✓	1.03	P/F	L/F
ICV	↓	↓	740	22.6	764.1	8.7	8.69	100.6	✓	1.03	P/F	L/F
CCV	↓	↓	1559	23.8	764.2	8.5	8.44	100.0	✓	1.03	P/F	L/F
CCV											P/F	L/F

DO Acceptance criteria from Table ± 0.3 mg/L.

Rapid-Pulse Sensors: DO Gain Range 0.7 to 1.4; DO Charge Range 25-75.

Optical: DO gain range 0.85 to 1.15 (Pro DSS 0.75 to 1.50); DO charge N/A. Steady-state & Galvanic Sensors: DO Gain & Charge N/A.

Spec. Cond. FT 1200	Name	Date	Time CT-ET	Lot #	Expir. Date	Standard μ hos/cm	Meter Reading μ hos/cm	Pass / Fail	Lab / Field
Calibr.	Bruce Davis	8/12/21	736	210426B	5/22	1000	1000	P/F	L/F
ICV			737	210426A	5/22	100	101.1	P/F	L/F
CCV			1601	210426B	5/22	1000	1001	P/F	L/F
CCV								P/F	L/F

Conductivity Acceptance criteria $\pm 5\%$

pH DEP SOP FT 1100	Name	Date	Time CT-ET	Lot #	Expir. Date	pH Buffer SU	Temp °C	Meter reading SU	mV	Pass / Fail	Lab / Field
Calibr.	Bruce Davis	8/12/21	746	2104E81	4/23	7.01	23.4	7.01	-30.5	P/F	L/F
Calibr.			750	2103659	3/23	4.00	23.5	4.00	148.0	P/F	L/F
Calibr.			755	2107A04	12/22	10.01	23.5	1.01	-199.8	P/F	L/F
ICV			757	2104E81	4/23	7.01	23.5	7.02	-28.2	P/F	L/F
CCV			1602	2103659	3/23	4.0	23.0	4.11	140.6	P/F	L/F
CCV			16.03	2107A04	12/22	10.02	22.9	10.04	-202.6	P/F	L/F

pH Acceptance criteria ± 0.2 SU; mV pH 7 Range 0 ± 50 ;

mV pH 4 Range $+180 \pm 50$;

mV pH 10 Range -180 ± 50 ;

If mV are recorded: slope from 7 to 10 169.3, slope from 4 to 7 178.5 (both must be between 165 and 180 mV)

Does meter have a depth sensor that will be used to measure total depth & sample depth? YES / NO / NA (not surf. water project)

If YES, complete daily Calibr. & ICV below and list date of last quarterly depth verification: 5/17/21

If NO, what will be used? (circle one) Secchi Disk Line / Sonar Unique ID: _____; Date of last verification: _____

Depth Sensor (Daily Calibration & ICV)	Name	Date	Time CT-ET	Calibrated Value (0.00 or Offset), meters	ICV Value, meters	Pass / Fail	Lab / Field
Pressure mode in air	Bruce Davis	8/12/21	800	0.00	0.00	P/F	L/F

Report two decimal places. Round numbers ≤ 4 down, ≥ 5 up. ICV acceptance criteria $\pm 5\%$ or ± 0.05 m, whichever is greater.

COMMENTS:

82876 *JP Combined JP*

DEP FORM FD 9000-27 LAKE VEGETATION INDEX FIELD SHEET

Waterbody: <i>George's Lake</i>		County: <i>Putnam</i>		Date: <i>8/12/21</i>							
Analyst: <i>Jeremy Parrish + Kim Appleby</i>		Signature: _____		STORET: <i>20030417</i>							
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): <i>1, 4, 7, 10</i> 2, 5, 8, 11 3, 6, 9, 12							
SPECIES	1	4	7	10	Collected? (✓)	SPECIES	1	4	7	10	Collected? (✓)
<i>Acer rubrum</i>	P		✓	✓		<i>Habenaria repens</i>					
<i>Alternanthera philoxeroides</i>	P	P	✓	✓		<i>Hydrilla verticillata</i>					
<i>Andropogon</i> sp.	P	P	✓			<i>Hydrocotyle</i> sp.	P	P	✓	✓	
<i>Azolla filiculoides</i> (A. caroliniana)						<i>Hygrophila polysperma</i>					
<i>Baccharis</i> sp.				✓		* <i>Hypericum fasciculatum</i>					
<i>Bacopa caroliniana</i>						* <i>Hypericum hypericoides</i>					
<i>Bacopa monnieri</i>						* <i>Hypericum myrtifolium</i>					
<i>Bidens laevis</i>						<i>Ilex cassine</i>				✓	
<i>Bidens mitis</i>						<i>Ipomoea aquatica</i>					
<i>Blechnum serrulatum</i>						<i>Ipomoea sagittata</i>					
<i>Boehmeria cylindrica</i>						<i>Itea virginica</i>					
<i>Brasenia schreberi</i>						<i>Juncus effusus</i>	P	P			
<i>Cabomba caroliniana</i>						* <i>Juncus marginatus</i>				✓	
<i>Casuarina equisetifolia</i>						* <i>Juncus megacephalus</i>					
<i>Centella asiatica</i>	P	P				<i>Juncus repens</i>					
<i>Cephalanthus occidentalis</i>	P	P	✓	✓		* <i>Juncus scirpoides</i>	P	P			
<i>Ceratophyllum demersum</i>						<i>Lachnanthes caroliniana</i>				✓	
<i>Chara</i> sp.						<i>Leersia hexandra</i>	P	P	✓	✓	
<i>Cladium jamaicense</i>						<i>Landoltia punctata</i> (<i>Spirodela punctata</i>)					
<i>Cliftonia monophylla</i>						<i>Lemna</i> sp.			✓	✓	
<i>Colocasia esculenta</i>	P	P	✓	✓		<i>Leucothoe racemosa</i> (<i>Eubotrys racemosa</i>)					
* <i>Commelina</i>	P	P				<i>Limnium spongia</i>					
<i>Crinum americanum</i>						<i>Limnophila sessiliflora</i>					
* <i>Cyperus alternifolius</i> (C. involucratus)						<i>Liquidambar styraciflua</i>	P		✓		
<i>Cyperus articulatus</i>						* <i>Ludwigia arcuata</i>					
<i>Cyperus haspan</i>						* <i>Ludwigia leptocarpa</i>	P	P	✓	✓	
* <i>Cyperus lecontei</i>						* <i>Ludwigia linearis</i>					
* <i>Cyperus polystachyos</i>						* <i>Ludwigia octovalvis</i>					
* <i>Cyperus odoratus</i>						* <i>Ludwigia peruviana</i>	P	P	✓	✓	
* <i>Cyperus surinamensis</i>						* <i>Ludwigia repens</i>					
<i>Cyrilla racemiflora</i>						* <i>Ludwigia</i>					
<i>Decodon verticillatus</i>			✓	✓		<i>Luziola fluitans</i> (<i>Hydrochloa carolinensis</i>)	P				
<i>Diodia virginiana</i>						<i>Lyonia lucida</i>					
* <i>Echinochloa crus-galli</i>						<i>Magnolia virginiana</i>			✓	✓	
* <i>Echinochloa muricatum</i>						<i>Mayaca fluviatilis</i>					
<i>Echinochloa walteri</i>						<i>Melaleuca quinquenervia</i>					
<i>Eclipta prostrata</i> (E. alba)						<i>Micranthemum glomeratum</i>					
<i>Egeria densa</i>						<i>Micranthemum umbrosum</i>				✓	
<i>Eichhornia crassipes</i>	P	P	✓	✓		<i>Mikania scandens</i>					
* <i>Eleocharis baldwinii</i>						<i>Mimosa pigra</i>					
* <i>Eleocharis viviparous</i>	P	P	✓	✓		<i>Myrica cerifera</i>	P	P	✓	✓	
<i>Eleocharis cellulosa</i>						<i>Podium</i>					
<i>Eleocharis equisetoides</i>						<i>Erckhitiopsis macrocarpa</i>					✓
<i>Eleocharis interstincta</i>						<i>Quercus nigra</i>		P			
* <i>Eriocaulon compressum</i>						<i>Nepenthes</i>		P			
* <i>Eriocaulon decangulare</i>											
<i>Eupatorium capillifolium</i>	P	P	✓	✓							
* <i>Fuirena</i>											
<i>Fuirena scirpoidea</i>	P	P	✓	✓							
<i>Gordonia lasianthus</i>											

560 ✓
JL
8/16/21

FORM FD 9000-27: LAKE VEGETATION INDEX FIELD SHEET

Site:						Date:					
SPECIES	1	4	7	10	Collected? (✓)	SPECIES	1	4	7	10	Collected? (✓)
Myriophyllum aquaticum						Salix caroliniana					
*Myriophyllum heterophyllum						Salvinia minima		P	P	✓	✓
*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)		P	P	✓	✓
Nuphar sp.	P	P	✓	✓		Scirpus cyperinus					
Nymphaea odorata						*Sesbania					
Nymphoides aquatica			✓			Solidago sp.					
Nyssa sylvatica var. biflora		P	✓	✓		Sparganium americanum					
Orontium aquaticum						Spartina bakeri					
Osmunda cinnamomea						Spirodela polyrhiza					
Osmunda regalis						Taxodium sp.				✓	✓
Panicum hemitomon	P	C	DD			Thalia geniculata					
Panicum repens	C	P	✓	✓		Thelypteris palustris					
Paspalidium geminatum						Triadenum virginicum					
*Paspalum repens						Typha sp.				✓	
Paspalum urvillei		P	✓	✓		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.	P	P				*Utricularia radiata					
*Polygonum glabrum (densiflorum)						Vallisneria americana		P			
*Polygonum hydropiperoides	P					*Websteria confervoides					
*Polygonum punctatum						Wedelia trilobata (Sphagneticola trilobata)					
*Polygonum						Wolffiella spp.					
Pontederia cordata	P	P	✓	✓		Woodwardia virginica				✓	
*Potamogeton diversifolius						Xyris sp.					
*Potamogeton illinoensis						Zizania aquatica					
*Potamogeton pusillus						Zizaniopsis milacea					
*Potamogeton pectinatus (Stuckenia pectinatus)						Woodwardia areolata					
Proserpinaca pectinata						Sagittaria sp.					
*Rhexia marianae	P	P	P			Sagittaria sp.					
*Rhynchospora corniculata						Sesbania sp.		P	P		
*Rhynchospora inundata						Nephrrolepis					
Rhynchospora tracyi											
Ricciocarpus natans											
Sabal palmetto											
Sacciolepis striata											
*Sagittaria filiformis											
*Sagittaria graminea											
*Sagittaria isoetiformis											
Sagittaria lancifolia											
Sagittaria latifolia											

FORM FD 9000-27: LAKE VEGETATION INDEX FIELD SHEET

Site:					Date:				
SPECIES	1	4		Collected? (✓)	SPECIES	1	4		Collected? (✓)
Myriophyllum aquaticum					Salix caroliniana				
*Myriophyllum heterophyllum					Salvinia minima	x	x		
*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)	x	x		
Nuphar sp.	x	x			Scirpus cyperinus				
Nymphaea odorata	knk				*Sesbania maybe minor	x	x		✓
Nymphoides aquatica					Solidago sp.				
Nyssa sylvatica var. biflora		x			Sparganium americanum				
Orontium aquaticum					Spartina bakeri				
Osmunda cinnamomea					Spirodela polyrhiza				
Osmunda regalis					Taxodium sp.				
Panicum hemitomon	x	x		x	Thalia geniculata				
Panicum repens	x	x			Thelypteris palustris				
Paspalidium geminatum					Triadenum virginicum				
*Paspalum repens					Typha sp.				
Paspalum urvillei		x			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.	x	x			*Utricularia radiata				
*Polygonum glabrum (densiflorum)					Vallisneria americana	x			
*Polygonum hydropiperoides	x				*Websteria confervoides				
*Polygonum punctatum					Wedelia trilobata (Sphagneticola trilobata)				
*Polygonum					Wolffiella spp.				
Pontederia cordata	x	x			Woodwardia virginica				
*Potamogeton diversifolius					Xyris sp.				
*Potamogeton illinoensis					Zizania aquatica				
*Potamogeton pusillus					Zizaniopsis milacea				
*Potamogeton pectinatus (Stuckenia pectinatus)					Quercus water oak		x		
Proserpinaca pectinata					Nephrolepis sword fern		x		
*Rhaxia <u>mariana</u>		x							
*Rhynchospora corniculata									
*Rhynchospora inundata									
Rhynchospora tracyi									
Ricciocarpus natans									
Sabal palmetto									
Sacciolepis striata									
*Sagittaria filiformis									
*Sagittaria graminea									
*Sagittaria isoetiformis									
Sagittaria lancifolia									
Sagittaria latifolia									

yellow-white pea

DEP FORM FD 9000-27 LAKE VEGETATION INDEX FIELD SHEET

Waterbody:				County:				Date:			
Analyst:				Signature:				STORET:			
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			
SPECIES	1	4		Collected? (✓)	SPECIES	1	4		Collected? (✓)		
Acer rubrum	X				Habenaria repens						
Alternanthera philoxeroides	X	X			Hydrilla verticillata						
Andropogon sp.	X	X			Hydrocotyle sp.	X	X				
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	X	X				
Cabomba caroliniana					*Juncus marginatus						
Casuarina equisetifolia				✓	*Juncus megacephalus		X				
Centella asiatica	X	X		✓	Juncus repens						
Cephalanthus occidentalis	X	X			*Juncus scirpoides	X	X				
Ceratophyllum demersum					Lachnanthes caroliniana						
Chara sp.					Leersia hexandra	X	X		✓		
Cladium jamaicense					Landoltia punctata (Spirodela punctata)						
Cliftonia monophylla					Lemna sp.						
Colocasia esculenta	X	X			Leucothoe racemosa (Eubotrys racemosa)						
*Commelina	X			X	Limnium spongia						
Crinum americanum					Limnophila sessiliflora						
*Cyperus alternifolius (C. involucratus)					Liquidambar styraciflua	X					
Cyperus articulatus					*Ludwigia arcuata						
Cyperus haspan					*Ludwigia leptocarpa	X	X				
*Cyperus lecontei					*Ludwigia linearis						
*Cyperus polystachyos					*Ludwigia octovalvis						
*Cyperus odoratus					*Ludwigia peruviana	X	X				
*Cyperus surinamensis					*Ludwigia repens						
Cyrilla racemiflora					*Ludwigia						
Decodon verticillatus					Luziola fluitans (Hydrochloa carolinensis)	X					
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		X	X		Mikania scandens						
*Eleocharis baldwinii		X	X	✓	Mimosa pigra						
*Eleocharis viviparous		X	X	✓	Myrica cerifera	X	X				
Eleocharis cellulosa											
Eleocharis equisetoides											
Eleocharis interstincta											
*Eriocaulon compressum											
*Eriocaulon decangulare											
Eupatorium capillifolium	X	X									
*Fuirena	X	X		✓							
Fuirena scirpoidea											
Gordonia lasianthus											

82876 W

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

STORET STATION NUMBER:	DATE (M/D/Y) 8/12/21	LAKE NAME Georges Lake Center		FIELD ID / NAME:	
ECO-REGION:	COUNTY: Putnam	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	
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) ☒	
	Optimal	Suboptimal		Marginal	
Secchi	Secchi > 3 m Or VOB	Secchi(m)		1.0 0.9 0.8 0.7 0.6	
☐	20 19 18 17 16	3 2.6 2.2 1.8 1.4		0.5 0.4 0.3 0.2 0.1	
☐	15 14 13 12 11	10 9 8 7 6		5 4 3 2 1	
Vegetation Quality	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	
☐	20 19 18 17 16	15 14 13 12 11		10 9 8 7 6	
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	
☐	20 19 18 17 16	15 14 13 12 11		10 9 8 7 6	
Bottom Substrate Quality	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	
☐	20 19 18 17 16	15 14 13 12 11		10 9 8 7 6	
Lakeside Adverse Human Alternations	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	
☐	20 19 18 17 16	15 14 13 12 11		10 9 8 7 6	
Upland 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	
☐	20 19 18 17 16	15 14 13 12 11		10 9 8 7 6	
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	
TOTAL SCORE	82	COMMENTS:			

ANALYSIS DATE:

8/12/21

ANALYST:

Jen Pann / Kim Appleby

SIGNATURE:

Jen Pann

SAMPLE ID: 82876 MACROPHYTE ID: _____ LATITUDE: _____
 COUNTY: Pottam STORET #: 20030417 LONGITUDE: _____
 DATE: 8/12/21 TIME: 1210 SAMPLING AGENCY: _____
 SITE NAME: Georges Lake Center WBID: 2541
 FIELD ID/NAME: _____ LAKE SIZE: _____ RQ: _____

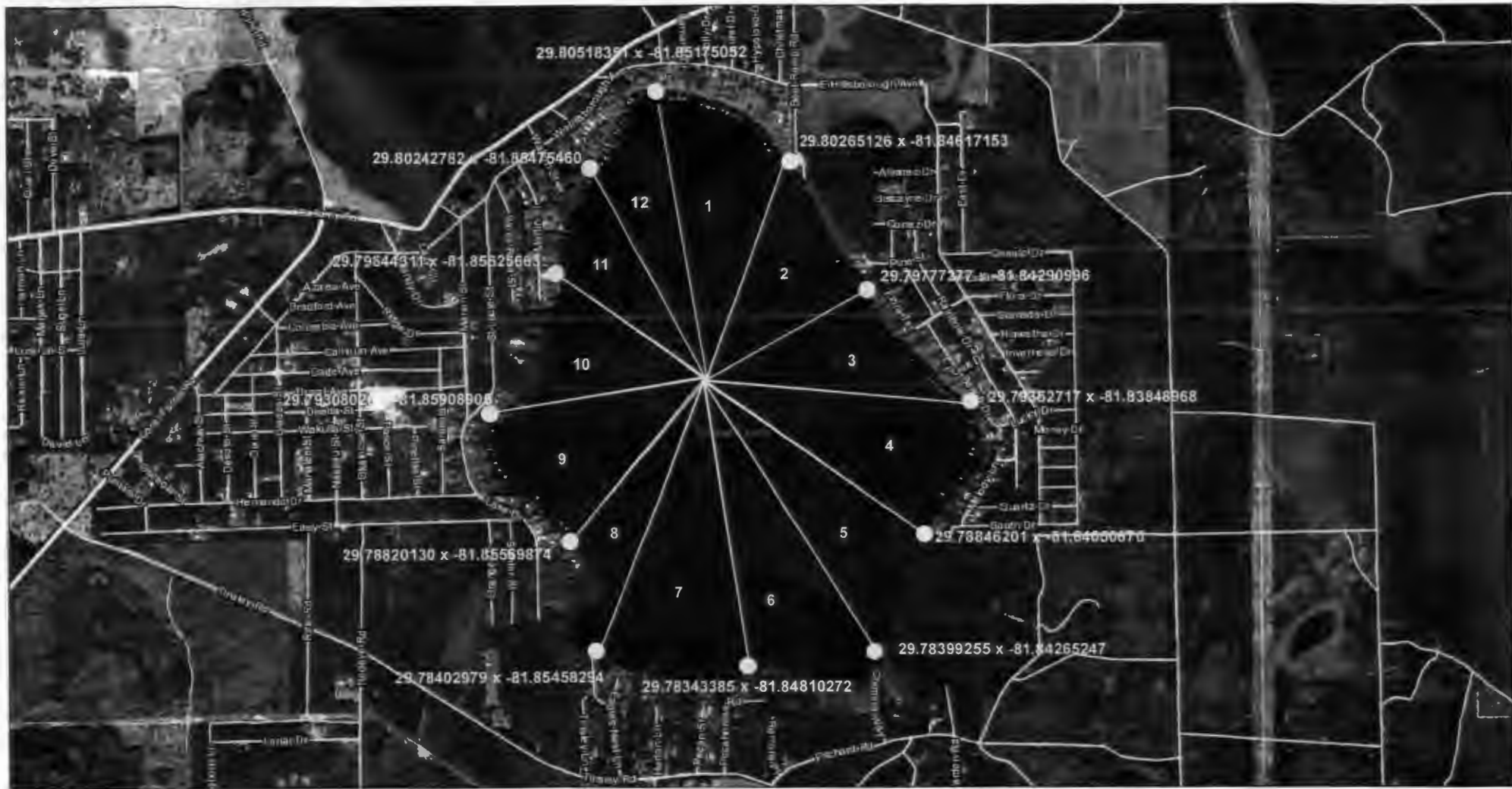
WATERSHED / LAKESIDE FEATURES

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)	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		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										
<u>10</u>		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)										
<u>10</u>		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										
<u>10</u>		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

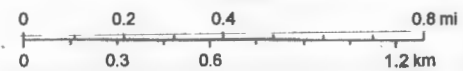
Water: Nutrient Sample Taken? ☒ Yes ☐ No Preserved? ☐ Yes ☐ No pH < 2 ☐ No Color Sample Taken? ☒ Yes ☐ No Lot # _____ Exp. Date: _____ Alkalinity Sample Taken? ☒ Yes ☐ No Water Level ☐ Low ☐ Normal ☒ High								Water Odors: ☒ Normal ☐ Sewage ☐ Petroleum ☐ Other _____ Water Surface Oils: ☐ None ☐ Sheen/Slick ☐ Glob ☐ Other _____																																							
Meter Readings: <table border="1"> <thead> <tr> <th></th> <th>Depth (M)</th> <th>Temp. (°C)</th> <th>pH (SU)</th> <th>D.O. (MG/L)</th> <th>D.O. Sat. (%)</th> <th>Cond. (UMHO/CM)</th> <th>Salinity (PPT)</th> </tr> </thead> <tbody> <tr> <td>Top:</td> <td><u>0.3</u></td> <td><u>30.7</u></td> <td><u>8.08</u></td> <td><u>7.92</u></td> <td><u>106</u></td> <td><u>30.7</u></td> <td><u>0.02</u></td> </tr> <tr> <td>Mid-Depth:</td> <td><u>2.0</u></td> <td><u>29.3</u></td> <td><u>6</u></td> <td><u>5.19</u></td> <td><u>67.5</u></td> <td><u>29.3</u></td> <td><u>0.02</u></td> </tr> <tr> <td>Bottom:</td> <td><u>4.5</u></td> <td><u>29.5</u></td> <td><u>5.61</u></td> <td><u>2.25</u></td> <td><u>29.5</u></td> <td><u>28.5</u></td> <td><u>0.82</u></td> </tr> </tbody> </table>									Depth (M)	Temp. (°C)	pH (SU)	D.O. (MG/L)	D.O. Sat. (%)	Cond. (UMHO/CM)	Salinity (PPT)	Top:	<u>0.3</u>	<u>30.7</u>	<u>8.08</u>	<u>7.92</u>	<u>106</u>	<u>30.7</u>	<u>0.02</u>	Mid-Depth:	<u>2.0</u>	<u>29.3</u>	<u>6</u>	<u>5.19</u>	<u>67.5</u>	<u>29.3</u>	<u>0.02</u>	Bottom:	<u>4.5</u>	<u>29.5</u>	<u>5.61</u>	<u>2.25</u>	<u>29.5</u>	<u>28.5</u>	<u>0.82</u>	Clarity: ☒ Clear ☐ Opaque ☐ Turbid ☐ Slightly Turbid Color: ☐ Clear ☒ Tannic ☐ Green SECCHI (M) <u>1.4</u> Total Station Depth (M) <u>5.4</u> VOB ☐							
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Sediment Type: (may check more than one) ☒ Sandy ☐ Organic fibrous (peaty, CPOM) ☐ Vegetated ☐ Sand/Silt ☐ Organic smooth (muck) ☐ Other (Specify): _____								Sediment Odors: ☒ Normal ☐ Anaerobic ☐ Other (Specify): _____																																							
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: <table border="1"> <thead> <tr> <th></th> <th>Absent</th> <th>Rare</th> <th>Common</th> <th>Abundant</th> </tr> </thead> <tbody> <tr> <td>Periphyton</td> <td>☒</td> <td>☐</td> <td>☐</td> <td>☐</td> </tr> <tr> <td>Nuisance Plants</td> <td>☐</td> <td>☐</td> <td>☒</td> <td>☐</td> </tr> <tr> <td>Submersed Plants</td> <td>☐</td> <td>☐</td> <td>☒</td> <td>☐</td> </tr> <tr> <td>Exotic Apple Snails</td> <td>☒</td> <td>☐</td> <td>☐</td> <td>☐</td> </tr> </tbody> </table>									Absent	Rare	Common	Abundant	Periphyton	☒	☐	☐	☐	Nuisance Plants	☐	☐	☒	☐	Submersed Plants	☐	☐	☒	☐	Exotic Apple Snails	☒	☐	☐	☐							
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Additional Notes: <u>Referenced lake</u> <u>Tem 88 B</u>																																															
Weather Conditions :																																															
SAMPLING TEAM: <u>Jerry Cunn/Kelly Appleby</u> <u>Brian Pons/Kelly</u>								SIGNATURE: <u>[Signature]</u>				DATE: <u>8/12/21</u>																																			

Standard Map



August 11, 2021

1:18,056



Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community

Map created by Map Direct, powered by ESRI. undefined

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Brian and Kelly	second team	Brian Davis second identifier				
11893	82876	08/12/2021	4	Lake Vegetative Index	Qualitative	A
08/16/2021	LEE_J	08/16/2021		FLEPPCPct	15.15	
Brian and Kelly	second team	Brian Davis second identifier				
11893	82876	08/12/2021	1	Lake Vegetative Index	Qualitative	A
08/16/2021	LEE_J	08/16/2021		NativePct	70	
Brian and Kelly	second team	Brian Davis second identifier				
11893	82876	08/12/2021	2	Lake Vegetative Index	Qualitative	A
08/16/2021	LEE_J	08/16/2021		NativePct	65.52	
Brian and Kelly	second team	Brian Davis second identifier				
11893	82876	08/12/2021	3	Lake Vegetative Index	Qualitative	A
08/16/2021	LEE_J	08/16/2021		NativePct	77.78	
Brian and Kelly	second team	Brian Davis second identifier				
11893	82876	08/12/2021	4	Lake Vegetative Index	Qualitative	A
08/16/2021	LEE_J	08/16/2021		NativePct	75.76	
Brian and Kelly	second team	Brian Davis second identifier				
11893	82876	08/12/2021	1	Lake Vegetative Index	Qualitative	A
08/16/2021	LEE_J	08/16/2021		CofC_Over7	3.33	
Brian and Kelly	second team	Brian Davis second identifier				
11893	82876	08/12/2021	2	Lake Vegetative Index	Qualitative	A
08/16/2021	LEE_J	08/16/2021		CofC_Over7	3.45	
Brian and Kelly	second team	Brian Davis second identifier				
11893	82876	08/12/2021	3	Lake Vegetative Index	Qualitative	A
08/16/2021	LEE_J	08/16/2021		CofC_Over7	11.11	
Brian and Kelly	second team	Brian Davis second identifier				
11893	82876	08/12/2021	4	Lake Vegetative Index	Qualitative	A
08/16/2021	LEE_J	08/16/2021		CofC_Over7	12.12	
Brian and Kelly	second team	Brian Davis second identifier				
11893	82876	08/12/2021	1	Lake Vegetative Index	Qualitative	A
08/16/2021	LEE_J	08/16/2021		CofC_Dom	1.5	
Brian and Kelly	second team	Brian Davis second identifier				
11893	82876	08/12/2021	2	Lake Vegetative Index	Qualitative	A
08/16/2021	LEE_J	08/16/2021		CofC_Dom	4.41	
Brian and Kelly	second team	Brian Davis second identifier				
11893	82876	08/12/2021	3	Lake Vegetative Index	Qualitative	A
08/16/2021	LEE_J	08/16/2021		CofC_Dom	5.82	
Brian and Kelly	second team	Brian Davis second identifier				
11893	82876	08/12/2021	4	Lake Vegetative Index	Qualitative	A
08/16/2021	LEE_J	08/16/2021		CofC_Dom	5.82	
Brian and Kelly	second team	Brian Davis second identifier				

MacPhyte ID	Visit ID	Sample Date	Rep	Gear/Method		
Qualitative/Quantitative	Status	Reviewed On	Reviewed By	Date		
Authorized	LIMS ID	Variable Name	Result	Dominant Taxon	Visit	Comment
Macrophyte Comment						
11893 82876	08/12/2021	1	Lake Vegetative Index	Qualitative	A	
08/16/2021	LEE_J 08/16/2021		LVI_2012_Rep	24		
Brian and Kelly	second team	Brian Davis	second identifier			
11893 82876	08/12/2021	2	Lake Vegetative Index	Qualitative	A	
08/16/2021	LEE_J 08/16/2021		LVI_2012_Rep	30		
Brian and Kelly	second team	Brian Davis	second identifier			
11893 82876	08/12/2021	3	Lake Vegetative Index	Qualitative	A	
08/16/2021	LEE_J 08/16/2021		LVI_2012_Rep	52		
Brian and Kelly	second team	Brian Davis	second identifier			
11893 82876	08/12/2021	4	Lake Vegetative Index	Qualitative	A	
08/16/2021	LEE_J 08/16/2021		LVI_2012_Rep	51		
Brian and Kelly	second team	Brian Davis	second identifier			
11893 82876	08/12/2021	1	Lake Vegetative Index	Qualitative	A	
08/16/2021	LEE_J 08/16/2021		DominantName	Panicum		
repens/Eleocharis vivipara	Brian and Kelly	second team	Brian Davis	second identifier		
11893 82876	08/12/2021	2	Lake Vegetative Index	Qualitative	A	
08/16/2021	LEE_J 08/16/2021		DominantName	Panicum		
hemitomon/Eleocharis vivipara	Brian and Kelly	second team	Brian Davis	second identifier		
11893 82876	08/12/2021	3	Lake Vegetative Index	Qualitative	A	
08/16/2021	LEE_J 08/16/2021		DominantName	Panicum		
hemitomon	Brian and Kelly	second team	Brian Davis	second identifier		
11893 82876	08/12/2021	4	Lake Vegetative Index	Qualitative	A	
08/16/2021	LEE_J 08/16/2021		DominantName	Panicum		
hemitomon	Brian and Kelly	second team	Brian Davis	second identifier		
11893 82876	08/12/2021	1	Lake Vegetative Index	Qualitative	A	
08/16/2021	LEE_J 08/16/2021		TotalTaxa	30		
Brian and Kelly	second team	Brian Davis	second identifier			
11893 82876	08/12/2021	2	Lake Vegetative Index	Qualitative	A	
08/16/2021	LEE_J 08/16/2021		TotalTaxa	29		
Brian and Kelly	second team	Brian Davis	second identifier			
11893 82876	08/12/2021	3	Lake Vegetative Index	Qualitative	A	
08/16/2021	LEE_J 08/16/2021		TotalTaxa	36		
Brian and Kelly	second team	Brian Davis	second identifier			
11893 82876	08/12/2021	4	Lake Vegetative Index	Qualitative	A	
08/16/2021	LEE_J 08/16/2021		TotalTaxa	33		
Brian and Kelly	second team	Brian Davis	second identifier			
11893 82876	08/12/2021	1	Lake Vegetative Index	Qualitative	A	
08/16/2021	LEE_J 08/16/2021		FLEPPCPct	16.67		
Brian and Kelly	second team	Brian Davis	second identifier			
11893 82876	08/12/2021	2	Lake Vegetative Index	Qualitative	A	
08/16/2021	LEE_J 08/16/2021		FLEPPCPct	17.24		
Brian and Kelly	second team	Brian Davis	second identifier			
11893 82876	08/12/2021	3	Lake Vegetative Index	Qualitative	A	
08/16/2021	LEE_J 08/16/2021		FLEPPCPct	13.89		