

Field Personnel processing steps

☐ New Field IDs created (when using a new station) Date: _____ initials: _____ ☒ NA

☐ Create entry in SMPStationCreationFile if new station is used

\\Fldep1\wqap\NW ROC\TMDL\WIN_Station Creation

☒ Date sampled Date: 09/09/2019 initials: FB

☒ Update "SMP Tracker" Date: 09/09/2019 initials: FB

☒ Photos put into archive Date: 09/10/2019 initials: FB ☐ NA

☒ Copy of Calibration Log for YSI used

☐ Field Sheets initialed/dated @ "Scan/Save Field Sheets" then scanned and saved into:

Scans_ToBeProcessed Date: 09/10/2019 initials: FB

Scan order; Cover Sheet, Calibration Log, Field Sheets, Tallahassee Submittal Sheets, Overflow Lab COC

☒ Update "Data Tracker"

\\publicfiles\pubfds\DEAR\WQAPmonitoring\StrategicMonitoring\2019\21FLPNS

Ready for folder system (top)

LIMS processing (to be completed by LIMS data personnel) (MC)

☐ Field parameters entered into LIMS Date: _____ initials: _____

☐ Digital RQ packet put into

SMP 2019/Data/Scanned Field Sheets Date: _____ initials: _____

☐ Digital field Sheets put into archive Date: _____ initials: _____

☐ Date submitted for QA/QC Date: _____ initials: _____

☐ Update "Data Tracker"

Database processing (Cheryl)

☐ Field parameters QA/QC in LIMS Date: _____ initials: _____

☐ Lab results put into archive (CB) Date: _____ initials: _____

☐ Data migrated to WINS Date: _____ initials: _____

☐ Update "Data Tracker"

Notes: Biology (LVI, HA).

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: 15417a

RQ: 2019-07-15-28

Project: LVI / SMP

- 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 6/13/19

DO DEPSOP 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.											P / F	L / F
ICV											P / F	L / F
CCV	<u>M. Clark</u>	<u>9/9/19</u>	<u>7:40</u>	<u>26.2</u>	<u>767</u>	<u>7.9</u>	<u>7.9</u>	<u>100.4</u>			<u>(P)</u> / <u>(L)</u>	<u>(F)</u>
CCV	<u>↓</u>	<u>↓</u>	<u>14:16</u>	<u>27.5</u>	<u>767</u>	<u>8.0</u>	<u>8.04</u>	<u>100.7</u>			<u>(P)</u> / <u>(L)</u>	<u>(F)</u>

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.	<u>M. Clark</u>	<u>9/9/19</u>	<u>7:42</u>	<u>190116A</u>	<u>1/20</u>	<u>1000</u>	<u>1000</u>	<u>(P)</u> / <u>(F)</u>	<u>(L)</u> / <u>(F)</u>
ICV	<u>↓</u>	<u>↓</u>	<u>7:44</u>	<u>190618A</u>	<u>9/20</u>	<u>100</u>	<u>103.4</u>	<u>(P)</u> / <u>(F)</u>	<u>(L)</u> / <u>(F)</u>
CCV	<u>↓</u>	<u>↓</u>	<u>14:18</u>	<u>190618A</u>	<u>6/20</u>	<u>100</u>	<u>103.7</u>	<u>(P)</u> / <u>(F)</u>	<u>(L)</u> / <u>(F)</u>
CCV								P / F	L / F

Conductivity Acceptance criteria $\pm 5\%$

pH DEPSOP FT 1100	Name	Date	Time CT-ET	Lot #	Expir. Date	pH Buffer SU	Temp °C	Meter reading SU	mV	Pass / Fail	Lab / Field
Calibr.	<u>M. Clark</u>	<u>9/9/17</u>	<u>7:46</u>	<u>2811603</u>	<u>10/20</u>	<u>7.</u>	<u>27.9</u>	<u>7.00</u>	<u>-65.1</u>	<u>(P)</u> / <u>(F)</u>	<u>(L)</u> / <u>(F)</u>
Calibr.	<u>↓</u>	<u>↓</u>	<u>7:48</u>	<u>2902618</u>	<u>1/21</u>	<u>4.</u>	<u>28.7</u>	<u>4.00</u>	<u>116.5</u>	<u>(P)</u> / <u>(F)</u>	<u>(L)</u> / <u>(F)</u>
Calibr.	<u>↓</u>	<u>↓</u>	<u>7:50</u>	<u>4904509</u>	<u>9/20</u>	<u>10.</u>	<u>29.0</u>	<u>10.0</u>	<u>-234.5</u>	<u>(P)</u> / <u>(F)</u>	<u>(L)</u> / <u>(F)</u>
ICV	<u>↓</u>	<u>↓</u>	<u>7:51</u>	<u>2902618</u>	<u>1/21</u>	<u>4.0</u>	<u>28.0</u>	<u>3.97</u>	<u>116.2</u>	<u>(P)</u> / <u>(F)</u>	<u>(L)</u> / <u>(F)</u>
CCV	<u>↓</u>	<u>↓</u>	<u>14:20</u>	<u>2811603</u>	<u>10/20</u>	<u>7.0</u>	<u>23.6</u>	<u>7.01</u>	<u>-6.7</u>	<u>(P)</u> / <u>(F)</u>	<u>(L)</u> / <u>(F)</u>
CCV										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 10 169.1, slope from 4 to 7 178.6 (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: 6/13/19

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	<u>M. Clark</u>	<u>9/9</u>	<u>7:53</u>	<u>0.00</u>	<u>0.00</u>	<u>(P)</u> / <u>(F)</u>	<u>(L)</u> / <u>(F)</u>

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

COMMENTS:

Site Name Blue Pond (Center)

Date: 09/09/2019

Field ID G3NW0070 Storet G3NW0070

Project: TMDL Studies/ SMP

Visit ID 80214

RQ: 2019-07-15-28

RPS ID N/A

LIMS ID: 2117137

Macro ID 11474

WBID: 204A

HA ID 16235

☒ LVI

☒ Sample Site Created in SBIO

☒ Phys/Chem entered in SBIO

☒ HA entered in SBIO Initial FB 9/10/2019

☐ Date and Initial QA: _____

☒ LVI entered in SBIO Initial FB 9/10/2019

☐ Date and Initial QA: _____

☒ ~~< 2 m² vegetation~~

☒ Plants getting verified

Date submitted: _____

☐ Plants verified

Date returned: _____

☐ Macro authorized in SBIO

☐ Date and Initial: _____

☐ LVI Score: _____

☒ If SMP, scanned into database



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2018

Data Qualified?

Yes ☒ No ☐

Location/STORET Station Name: Blue Pond (Center)

Date: 9/9/19
(mm/dd/yyyy)

WIN ID G3NW0070

WBID: 204A

Latitude: 30.85374391

County: Walton

RQ - 2019-07-15-28

ORG ID: 21FLPNS

Longitude: -86.03795773
(Decimal Degrees)

Receiving Body of Water: Choctawhatchee R. Field ID: G3NW0070
(Decimal Degrees)

Sampling Team Members					WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
Frank Butera						X	X	X	X
Myranda Clark Mike King					X	X			

Sampling Equipment			
☒ Sample Container	☐ Van Dorn	☐ Pole	
☐ Carboy	☒ Syringe		
☐ Dipper	☐ Other		
Equipment ID			
Collection Method			
☐ Wading	☐ Canoe/Kayak		
☐ From Shore	☒ Electric Motor		
☐ Other	☐ Gasoline Motor		

Water Level: Dry / ☒ Low / Normal / Above Normal / Flooded

Meter ID# 154129

Matrix: ☒ Fresh / Marine / DI

Photos: ☒ Yes / No

Flow: No Flow / Intestinal / Flowing / ☒ NA

Tide: Rising / Falling / Slack / ☒ NA

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 (µmhos/cm)	Temp. (C°)
EST	11:18	Greater than 8.2	0.3		7.37	98.7	4.92	0.00	14.0	31.0
CEN			8.1	3.8	0.20	2.4	5.27	0.03	64.7	23.5

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

SBIO ID Numbers: SBIO-ID: 80214 HA-ID: 16235 RPS-ID: N/A Macrophyte-ID: 11474 LIMS#: 217137

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	SA9010030	04/10/2020	☒ <2
Metals	☒ W-ICPMS ☒ W-ICP	☒ Ice ☒ HNO3	NA9099030	04/09/2020	☒ <2
Filtered Nutrients	☒ W-PO4-F ☐ Field Filtered 0.45 µm Filter	☒ Ice	16570048		
Chlorophyll	☒ CHL-SUITE-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			

Place Preservative Sticker(s) Here (If Available)

Notes: Depth is greater than 8.2m. Hit end of ProDSS cable.

Field/WIN ID →



Location: Blue Pond (Center)

Signature: Myranda Clark

Date: 9/9/19

Enter Field Parameters, Verify Station ID in LIMS DMT:

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: 80214 MACROPHYTE ID: 11474 LATITUDE: N 30.38537491
 COUNTY: Walton STORET #: G3NW0070 LONGITUDE: W -86.03795773
 DATE: 09/09/2019 TIME: 11:18 CTZ SAMPLING AGENCY: FL DEP - NWROC
 SITE NAME: Blue Pond (Center) WBID: 204A
 FIELD ID/NAME: G3NW0070 LAKE SIZE: 52 RQ: 2019-07-15-28

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)
☐	☐	☐	☐	☐	☐	☐	☐

Local Watershed Erosion (select one) : ☒ None ☐ Slight ☐ Moderate ☐ Heavy
 Local Watershed NPS Pollution : ☐ No evidence ☐ Slight ☐ Moderate ☐ Heavy ☐ Yes ☒ No

LANDSCAPE DEVELOPMENT INTENSITY (100 m buffer)
 LDI: N/A
 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
<u>19</u>	20 <u>19</u> 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>15</u>	20 19 18 17 16	<u>15</u> 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>20</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 ☒ 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:

	Depth (M)	Temp. (°C)	pH (SU)	D.O. (MG/L)	D.O. Sat. (%)	Cond. (UMHO/CM)	Salinity (PPT)
Top:	<u>0.3</u>	<u>31.0</u>	<u>4.92</u>	<u>7.37</u>	<u>98.7</u>	<u>14</u>	<u>31.0</u>
Mid-Depth:							
Bottom:	<u>8.1</u>	<u>23.5</u>	<u>5.27</u>	<u>0.20</u>	<u>2.4</u>	<u>64.7</u>	<u>23.5</u>

Meter ID: 154179 1148 CTZ

Clarity: ☒ Clear ☐ Opaque ☐ Turbid ☐ Slightly Turbid
Color: ☐ Clear ☐ Tannic ☒ Green

SECCHI (M) 3.8 Total Station Depth (M) 78.2
 VOB ☐

Sediment Type: (may check more than one)
☐ Sandy ☐ Organic fibrous (peaty, CPOM) ☒ Vegetated
☒ Sand/Silt ☐ Organic smooth (muck) ☐ Other (Specify): _____

Sample Taken? ☐ Yes ☒ No

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:

	Absent	Rare	Common	Abundant
Periphyton	☐	☐	☐	☒
Nuisance Plants	☐	☒	☐	☐
Submersed Plants	☐	☐	☐	☒
Exotic Apple Snails	☒	☐	☐	☐

Additional Notes:
 Many Large Fish feeders around lake to ~~High~~ Abundant algae & SAV along lake margin.

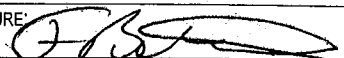
Weather Conditions: HWT 94°F, Heat Index 107°F, BASS. Aerator One aerator ring
Sub 11, Not turned on.

SAMPLING TEAM: Frank Butera, Mike King SIGNATURE: [Signature] DATE: 09/09/2019

STATE OF FLORIDA, DEPARTMENT OF ENVIRONMENTAL PROTECTION
Lake Habitat Assessment Field Sheet

Store/ WIN ID NUMBER: G3NW0070	DATE (M/D/Y) 09/09/19	LAKE NAME: Blue Pond (Center)		FIELD ID / NAME: G3NW0070
ECO-REGION: 204A	COUNTY: Walton	SAMPLING LOCATION/DESCRIPTION: Pleasant Grove, FL		LAKE SIZE: 52 ACRES
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 20	Secchi >3 m Or VOB (20) 19 18 17 16	3 2.6 2.2 1.8 1.4 15 14 13 12 11	1.0 0.9 0.8 0.7 0.6 10 9 8 7 6	0.5 0.4 0.3 0.2 0.1 5 4 3 2 1
Vegetation Quality 10	Diverse, expected native vegetation (emergent or submersed), less than 5% nuisance taxa SAV Choking the margin	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 19	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 18	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 15	Very few man-made structures, roads, or other disturbance adjacent to lake (<10%)	Moderate disturbance visible (structures, roads or other), 10%-49% lakeside affected Fish Feeders	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 20	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 15	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: **123** COMMENTS: Many Fish Feeders along lake, Algae & SAV Hyper-abundant.

ANALYSIS DATE: 09/09/19 ANALYST: Frank Butera, Mike King, Myranda Clark SIGNATURE: 

SBO ID: 80214

HA ID: 16235

RQ:2019-07-15-28

DEP FORM FD 9000-27 LAKE VEGETATION INDEX FIELD SHEET

Waterbody: Blue Pond (Center)					County: Walton (Pleasant Grove)					Date: 06/09/2019				
Analyst: F. Butera <i>M. Clark</i>					Signature: <i>F. Butera</i>					STORET: G3NW0070				
Except where noted as "sp," species level identification required. *Genera that may require lab verification*										Lake units sampled (circle one group):				
Plants in bold = FLEPPC invasive exotic.										1, 4, 7, 10 2, 5, 8, 11				
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.										3, 6, 9, 12				
SBIO ID <i>80214</i>					Macro ID <i>11474</i>									
SPECIES					SPECIES									
1 4 7 10 Collect ed? (✓)					1 4 7 10 Collect ed? (✓)									
Acer rubrum					Habenaria repens									
Alternanthera philoxeroides					Hydrilla verticillata									
Andropogon sp.					Hydrocotyle sp.									
Azolla filiculoides (A. caroliniana)					Hygrophila polysperma									
Baccharis sp.					*Hypericum fasciculatum					1 1 1 1				
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 (Spiro. punctata)									
Cliftonia monophylla					Lemna sp.									
Colocasia esculenta					Leucothoe racemosa (E. 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 (H. carolinensis)									
Diodia virginiana					Lyonia lucida									
*Echinochloa crus-galli					Magnolia virginiana					1				
*Echinochloa muricatum					Mayaca fluviatilis									
Echinochloa walteri					Melaleuca quinquenervia									
Eclipta prostrata (E. alba)					Micranthemum glomeratum									
Egeria densa					Micranthemum umbrosum									
Eichhornia crassipes					Mikania scandens									
*Eleocharis <i>baldwinii</i> <i>W. sp.</i>					Mimosa pigra									
*Eleocharis					Myrica cerifera					1 1 1 1				
Eleocharis cellulosa					<i>Hypericum canescens</i>					1 1 1 1				
Eleocharis equisetoides					<i>Sag. H. sp. (iso?)</i>					1 1 1 1				
Eleocharis interstincta					<i>Chelone</i>					1 1 1 1				
*Eriocaulon compressum					<i>Lycopodium</i>					1 1 1 1				
*Eriocaulon decangulare														
Eupatorium capillifolium														
*Fuirena														
Fuirena scirpoidea														
Gordonia lasianthus														

RQ:2019-07-15-28

FORM FD 9000-27: LAKE VEGETATION INDEX FIELD SHEET

Waterbody: Blue Pond Storet: G3NW0070						Date: 9/9/2019	SBIO ID: BQ214	Macro ID: 11474			
SPECIES	1	4	7	10	Collect ed? (✓)	SPECIES	1	4	7	10	Collect ed? (✓)
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					
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 (Sphag. trilobata)					
*Polygonum						Wolffiella spp.					
Pontederia cordata						Woodwardia virginica					
*Potamogeton diversifolius						Xyris sp.					
*Potamogeton illinoensis						Zizania aquatica					
*Potamogeton pusillus						Zizaniopsis milacea					
*Potamogeton pectinatus (Stuck. pectinatus)						V.I.S					
Proserpinaca pectinata						Green Algae					
*Rhexia											
*Rhynchospora corniculata											
*Rhynchospora inundata											
Rhynchospora tracyi											
Ricciocarpus natans											
Sabal palmetto											
Sacciolepis striata											
*Sagittaria filiformis											
*Sagittaria graminea											
*Sagittaria isoetiformis											

Photo Log

Storet G3NW0070

Station Name: Blue Pond

Date: 09/09/2019

Samplers: F. Butera,

Storet

1 G3NW0070 - ~~Blue~~ - 09/09/2019

2 G3NW0070 - N - 09/09/2019

3 G3NW0070 - E - 09/09/2019

4 G3NW0070 - S - 09/09/2019

5 G3NW0070 - W - 09/09/2019

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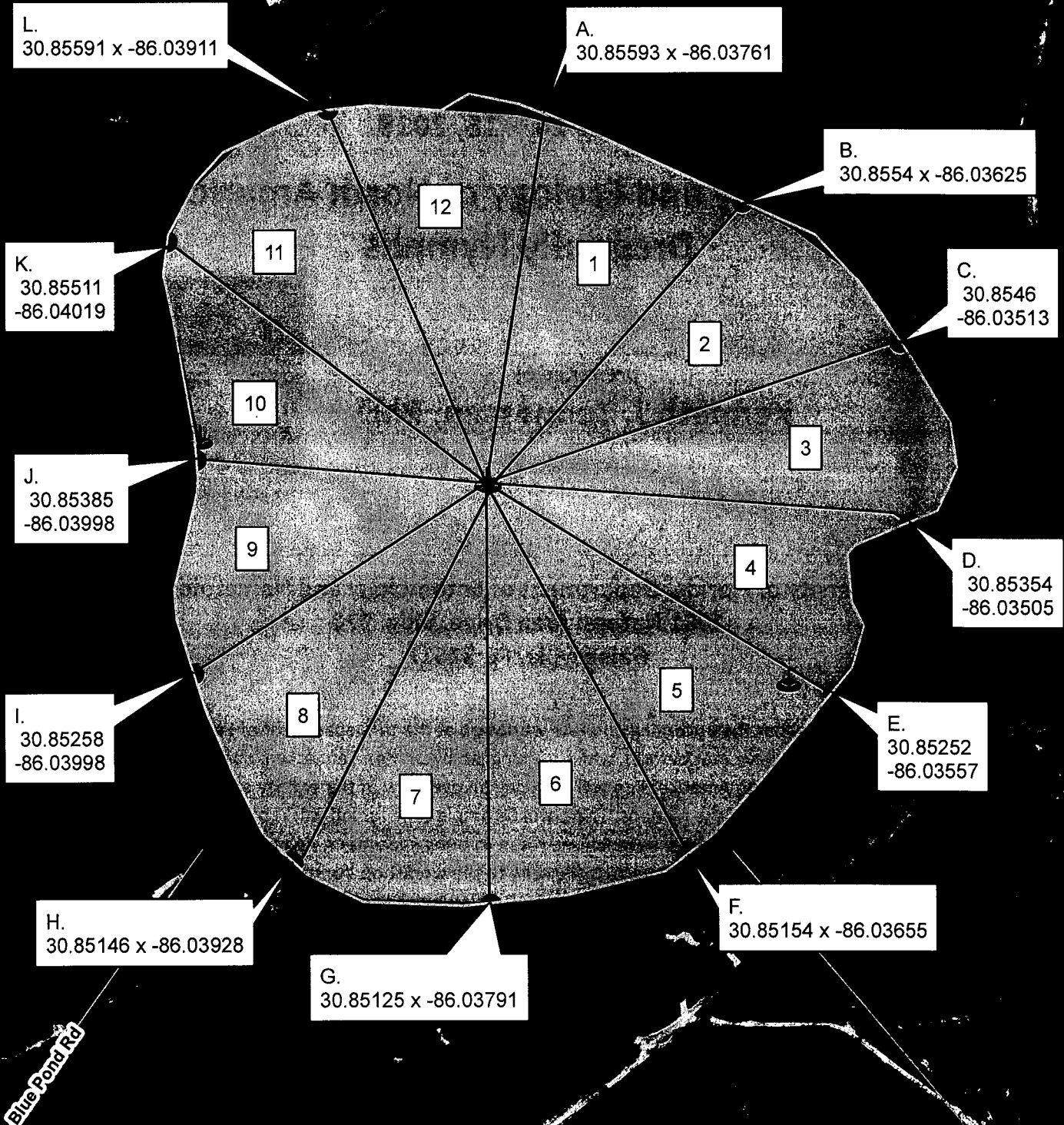
15 _____

16 _____

17 _____

Notes.

G3NW0070. Blue Pond
WBID 204A. SMP 2018
30.85374 x -86.03796



Station: Blue Pond (Center)
 GPS Dec. 30.85374 x -86.03796
 Storet: G3NW0070 WBID 204A
 Sample ID : 80214
 Macro ID: 11474

Sampled : 09/09/2019
 Sampled By. F.Butera, M. Clark
 Location. Defuniak Springs, Walton Co. FL
 Receiving Waters: Choctawhatchee River
 LIMS ID: 2117137

	Taxa	1	4	7	10	Coll.	Verified
1	<i>Clethra alnifolia</i>	1	1	1	1		
2	<i>Cyrilla racemiflora</i>	1	1	1	1		
3	<i>Eleocharis vivipara</i> (submersed)	1	1	1	1		
4	<i>Hypericum crux-andrea</i>	1	1	1	1		
5	<i>Hypericum fasciculatum</i>	1	1	1	1		
6	<i>Lycopus</i> sp.		1	1			
7	<i>Magnolia virginiana</i>	1					
8	<i>Myrica cerifera</i>		1		1		
9	<i>Myriophyllum laxum</i>	1	1	1	1	Y, FB	T.B.Verified
10	<i>Nitella</i> sp.	1	1	1	1		
11	<i>Nuphar</i> sp.	1	1	1	1		
12	<i>Nymphaea odorata</i>	1	1	1			
13	<i>Nymphoides aquatica</i>	1			1		
14	<i>Nyssa sylvatica</i> var. <i>biflora</i>	1	1	1	1		
15	<i>Panicum hemitomon</i>	1	1	1	1		
16	<i>Pontederia cordata</i>	1	1	1	1		
17	<i>Sagittaria</i> sp.				1		
18	<i>Taxodium</i> sp.	1	1	1	1		
19	<i>Utricularia floridana</i>	D	D	D	D		
20	<i>Vitis</i> sp.	1			1		
21	<i>Xyris</i> sp.				1		
	Taxa per section	16	15	14	17	Herb. Taxa	14
	Exotic Present	0	0	0	0	Woody Taxa	6
	Avg. taxa per section	16				Ferns	0
	sections with exotics	0				Macro Algae	1
	Exotic Taxa	0	Exotics per Section: 0.0			Total Taxa	21

Central Laboratory Submittal Form

M. Clark

FLPAS-MW Rec

Location	Field/WIN ID →		G3NWX0070	☐ Comp Grab	Collection (comp begin or grab) Date	Time	Eastern Central	Composite end Date	Time	Bottle Group(s)
Field ID				☒ Grab	9/7/19	11:16	☒ Central			(See pg 2)
WIN/STI	Location: Blue Pond (Center)			Temp (C)	31.0	pH	4.92	Diss. Oxygen	7.37	
Latitude	☐ dd ☐ dms			Salinity (ppt)	0.00	Comments		Sample Depth	0.3 m	
Location				☐ Comp ☐ Grab	Collection (comp begin or grab) Date	Time	Eastern Central	Composite end Date	Time	Bottle Group(s)
Field ID				Temp (C)		pH		Diss. Oxygen		
WIN/STORET #				Salinity (ppt)		Comments		Sample Depth		
Latitude	☐ dd ☐ dms			Longitude						
Location				☐ Comp ☐ Grab	Collection (comp begin or grab) Date	Time	Eastern Central	Composite end Date	Time	Bottle Group(s)
Field ID				Temp (C)		pH		Diss. Oxygen		
WIN/STORET #				Salinity (ppt)		Comments		Sample Depth		
Latitude	☐ dd ☐ dms			Longitude						
Location				☐ Comp ☐ Grab	Collection (comp begin or grab) Date	Time	Eastern Central	Composite end Date	Time	Bottle Group(s)
Field ID				Temp (C)		pH		Diss. Oxygen		
WIN/STORET #				Salinity (ppt)		Comments		Sample Depth		
Latitude	☐ dd ☐ dms			Longitude						
Location				☐ Comp ☐ Grab	Collection (comp begin or grab) Date	Time	Eastern Central	Composite end Date	Time	Bottle Group(s)
Field ID				Temp (C)		pH		Diss. Oxygen		
WIN/STORET #				Salinity (ppt)		Comments		Sample Depth		
Latitude	☐ dd ☐ dms			Longitude						
Location				☐ Comp ☐ Grab	Collection (comp begin or grab) Date	Time	Eastern Central	Composite end Date	Time	Bottle Group(s)
Field ID				Temp (C)		pH		Diss. Oxygen		
WIN/STORET #				Salinity (ppt)		Comments		Sample Depth		
Latitude	☐ dd ☐ dms			Longitude						
Location				☐ Comp ☐ Grab	Collection (comp begin or grab) Date	Time	Eastern Central	Composite end Date	Time	Bottle Group(s)
Field ID				Temp (C)		pH		Diss. Oxygen		
WIN/STORET #				Salinity (ppt)		Comments		Sample Depth		
Latitude	☐ dd ☐ dms			Longitude						
Location				☐ Comp ☐ Grab	Collection (comp begin or grab) Date	Time	Eastern Central	Composite end Date	Time	Bottle Group(s)
Field ID				Temp (C)		pH		Diss. Oxygen		
WIN/STORET #				Salinity (ppt)		Comments		Sample Depth		
Latitude	☐ dd ☐ dms			Longitude						
Location				☐ Comp ☐ Grab	Collection (comp begin or grab) Date	Time	Eastern Central	Composite end Date	Time	Bottle Group(s)
Field ID				Temp (C)		pH		Diss. Oxygen		
WIN/STORET #				Salinity (ppt)		Comments		Sample Depth		
Latitude	☐ dd ☐ dms			Longitude						
Location				☐ Comp ☐ Grab	Collection (comp begin or grab) Date	Time	Eastern Central	Composite end Date	Time	Bottle Group(s)
Field ID				Temp (C)		pH		Diss. Oxygen		
WIN/STORET #				Salinity (ppt)		Comments		Sample Depth		
Latitude	☐ dd ☐ dms			Longitude						
Location				☐ Comp ☐ Grab	Collection (comp begin or grab) Date	Time	Eastern Central	Composite end Date	Time	Bottle Group(s)
Field ID				Temp (C)		pH		Diss. Oxygen		
WIN/STORET #				Salinity (ppt)		Comments		Sample Depth		
Latitude	☐ dd ☐ dms			Longitude						
Location				☐ Comp ☐ Grab	Collection (comp begin or grab) Date	Time	Eastern Central	Composite end Date	Time	Bottle Group(s)
Field ID				Temp (C)		pH		Diss. Oxygen		
WIN/STORET #				Salinity (ppt)		Comments		Sample Depth		
Latitude	☐ dd ☐ dms			Longitude						
Location				☐ Comp ☐ Grab	Collection (comp begin or grab) Date	Time	Eastern Central	Composite end Date	Time	Bottle Group(s)
Field ID				Temp (C)		pH		Diss. Oxygen		
WIN/STORET #				Salinity (ppt)		Comments		Sample Depth		
Latitude	☐ dd ☐ dms			Longitude						
Location				☐ Comp ☐ Grab	Collection (comp begin or grab) Date	Time	Eastern Central	Composite end Date	Time	Bottle Group(s)
Field ID				Temp (C)		pH		Diss. Oxygen		
WIN/STORET #				Salinity (ppt)		Comments		Sample Depth		
Latitude	☐ dd ☐ dms			Longitude						
Location				☐ Comp ☐ Grab	Collection (comp begin or grab) Date	Time	Eastern Central	Composite end Date	Time	Bottle Group(s)
Field ID				Temp (C)		pH		Diss. Oxygen		
WIN/STORET #				Salinity (ppt)		Comments		Sample Depth		
Latitude	☐ dd ☐ dms			Longitude						
Location				☐ Comp ☐ Grab	Collection (comp begin or grab) Date	Time	Eastern Central	Composite end Date	Time	Bottle Group(s)

Group: A	Bottle Type: P-1L	# of Bottles: 2	Preservative:	ICE	Enter Number of Bottles Sent to Lab	1
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	1
CHLSUITE-W						
Group: A	Bottle Type: P-500ML	# of Bottles: 2	Preservative:	HNO3	Enter Number of Bottles Sent to Lab	1
HNO3 LOT# NA9099030 EXP: 04/09/20						
W-ICP						
W-ICPMS						
Group: A	Bottle Type: P-500ML	# of Bottles: 2	Preservative:	ICE And H2SO4	Enter Number of Bottles Sent to Lab	1
H2SO4 LOT# S89010030 EXP: 04/10/2020						
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	1
W-PO4-F						