



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2019

Data Qualified?

Yes / No

WIN Station Name: Merritt's Mill Pond Mid Under Powerlines

Date: 09/11/2019
(mm/dd/yyyy)

WIN/ Field ID: G2WA0008

WBID: 180A

Latitude: 30.7698

County: Jackson

ORG ID: 21FLWQA

Longitude: -85.1731
(Decimal Degrees)

Receiving Body of Water: Chipola River

RQ: 2019-09-30
(Decimal Degrees)

Sampling Team Members				WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check	Sampling Equipment			
Blake Spencer				X					☒ Sample Container	☒ Van Dorn	☐ Pole	
Curtis Musson					X		X	X	☐ Carboy	☒ Syringe		
Evelyn Becerra						X			☐ Dipper	☐ Other		
									Depth Measured with <u>sonar</u> # <u>1</u>			
									Equipment ID			
									Collection Method			
									☐ Wading	☐ Canoe/Kayak		
									☐ From Shore	☐ Electric Motor		
									☐ Other	☒ Gasoline Motor		
Water Level: Dry/ Pooled/ Low / Normal / High / Flooded				Meter ID# 18J104543				Matrix: <u>Fresh</u> Marine/ DI				
Photos: Yes / No				Flow: No Flow / Intestinal / Flowing / NA				Tide: Rising/ Falling/ Slack/ NA				
Tide Times: High <u>NA</u> Low <u>NA</u>												
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	10:08	2.0	0.3	VOB	10.88	134.5	7.99	0.12	259.3	26.2		
CEN	10:11		1.5		11.73	144.4	7.90	0.12	257.3	25.9		
Biological Samples Collected: <u>None</u> HA SCI <u>RPS</u> <u>Algae ID</u> LVS <u>LVI</u> Other:												
SBIO ID Numbers: SBIO-ID: <u>80300</u> HA-ID: <u>16285</u> RPS-ID: <u>9457</u> Macrophyte-ID: <u>11498</u> LIMS#: <u>2118281</u>												
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	<u>NA9099030</u>	<u>4/09/20</u>	☒ <2				
Filtered Nutrients	☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter				☒ Ice							
Chlorophyll	☒ CHLSUITE-W				☒ Ice							
Physical/Aggregate (Fresh)	☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-CHC / 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				☐ Ice							
	☐ PCR-HFJ83 ☐ PCR-DG3 ☐ PCR-GFD				☐ Ice							
Tracers	☐ W-E8321-DI ☐ W-E8321-MS				☐ Ice							
Pesticides	☐ W-PSNP-TQ ☐ W-CT-CL-R ☐ W-E8321-DI				☐ Ice							
	☐ W-PCL-SQ-R ☐ WE8321-MS ☐ W-CARB-AA				☐ Ice							
Phytoplankton	☐ DTY-QN-C ☐ PKD-QN-C				☐ Ice							
Notes: Nutrients Metals RPS, Algal ID, LVI												
Signature: _____ Date: 9/11/19												
WIN ID / FILED ID → <u>G2WA0008</u> Location: Merritt's Mill Pond mid under powerlines												

LIMS EVENT ID: WAS-SECT-2019-09-11-01

WIN Import ID:

Enter Field Parameters, Verify Station ID in LIMS DMT: 9/12/19
(Initials/Date)

QC Station ID, Field Parameters in LIMS DMT: 10/7/19
(Initials/Date)

Scan/Save Field Sheets
(Initials/Date)

Migrate Data to WIN:
(Initials/Date)

Verify Data in WIN:
(Initials/Date)

Waterbody: <i>Merritt's Mill Pond Mid Under Powerlines</i>		County: <i>Jackson</i>		Date: <i>9/11/19</i>									
Analyst: <i>Curtis Musson & Blake Spencer</i>		Signature: <i>[Signature]</i>		STORET: <i>G2WA0008</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.													
SPECIES		1	4	7	10	Collected? (v)	SPECIES		1	4	7	10	Collected? (v)
Acer rubrum		X		X	X		Habenaria repens						
Alternanthera philoxeroides							Hydrilla verticillata			X			
Andropogon sp.							Hydrocotyle sp.	X		X			
Azolla filiculoides (A. caroliniana)							Hrdolea quadrivalis						
Baccharis sp.					X		Hygrophila polysperma						
Bacopa caroliniana							*Hypericum fasciculatum						
Bacopa monnieri							*Hypericum hypericoides						
Bidens laevis							*Hypericum myrtifolium						
Bidens mitis							Ilex cassine						
Blechnum serrulatum							Ipomoea aquatica						
Boehmeria cylindrica			X	X	X		Ipomoea sagittata						
Brasenia schreberi							Iris pseudacorus			X	X		
Cabomba caroliniana							Itea virginica						
Casuarina equisetifolia							Juncus effusus						
Centella asiatica							*Juncus marginatus						
Cephalanthus occidentalis		X	X	X	X		*Juncus megacephalus						
Ceratophyllum demersum		C	X	X	X		Juncus repens						
Chara sp.			X	C	X		*Juncus scirpoides						
Cladium jamaicense		X		X	X		Lachnanthes caroliniana						
Cliftonia monophylla							Leersia hexandra						
Colocasia esculenta				X	X		Landoltia punctata (Spirodela punctata)						
*Commelina							Lemna sp.	X	X		X		
Crinum americanum							Leucothoe racemosa (Eubotrys racemosa)						
*Cyperus alternifolius (C. involucratus)							Limnium spongia						
Cyperus articulatus							Limnophila sessiliflora						
Cyperus haspan							Liquidambar styraciflua						
*Cyperus lecontei							*Ludwigia arcuata						
*Cyperus polystachyos							*Ludwigia leptocarpa	X	X	X	X		
*Cyperus odoratus		X	X				*Ludwigia linearis						
*Cyperus surinamensis							*Ludwigia octovalvis						
Cyrilla racemiflora							*Ludwigia peruviana						
Decodon verticillatus							*Ludwigia repens						
Diodia virginiana							*Ludwigia						
*Echinochloa crus-galli							Luziola fluitans (Hydrochloa carolinensis)						
*Echinochloa muricatum							Lycopus virginicus						
Echinochloa walteri							Lyonia lucida						
Eclipta prostrata (E. alba)							Magnolia virginiana						
Egeria densa							Mayaca fluviatilis						
Eichhornia crassipes			X	X			Melaleuca quinquenervia						
*Eleocharis baldwinii							Micranthemum glomeratum						
*Eleocharis							Micranthemum umbrosum						
Eleocharis cellulosa							Mikania scandens	X		X			
Eleocharis equisetoides							Mimosa pigra						
Eleocharis interstincta							Myrica cerifera				X		
*Eriocaulon compressum							<i>Fraxinus americana</i>	X	X	X			
*Eriocaulon decangulare													
Eupatorium capillifolium		X											
*Fuirena													
Fuirena scirpoidea													
Gordonia lasianthus													

FORM FD 9000-27: LAKE VEGETATION INDEX FIELD SHEET

Site: G2WA0008

Date: 9/11/19

SPECIES					Collected? (✓)	SPECIES					Collected? (✓)
	1	4	7	10			1	4	7	10	
Myriophyllum aquaticum						Salix caroliniana ✓					X
*Myriophyllum heterophyllum						Salvinia minima ✓			X	X	
*Myriophyllum laxum						Sambucus canadensis					
*Myriophyllum pinnatum						Sapium sebiferum					
Myriophyllum spicatum						Saururus cernuus					
*Najas filifolia						Schinus terebinthifolius					
*Najas guadalupensis ✓		X	C			*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. ✓			X		
Nyssa sylvatica var. biflora ✓	X	X	X	X		Sparganium americanum					
Orontium aquaticum						Spartina bakeri					
Osmunda cinnamomea						Spirodela polyrhiza					
Osmunda regalis						Taxodium sp. ✓	X	X	X	Δ	
Panicum hemitomon						Thalia geniculata					
Panicum repens						Thelypteris palustris					
Paspalidium geminatum						Triadenum virginicum ✓			X	X	
*Paspalum repens						Typha sp. ✓			X	X	
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) ✓	X		X			Vallisneria americana ✓	C	Δ	X	X	
*Polygonum hydropiperoides ✓			X			*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)						Sagittaria kurziana ✓	X				
Proserpinaca pectinata						Rosa palustris ✓	X			X	
*Rhexia						Carex sp. ✓			X		
*Rhynchospora comiculata						Vitis sp. ✓	X	X			
*Rhynchospora inundata											
Rhynchospora tracyi											
Ricciocarpus natans											
Sabal palmetto											
Sacciolepis striata											
*Sagittaria filiformis											
*Sagittaria graminea											
*Sagittaria isoetiformis											
Sagittaria lancifolia											
Sagittaria latifolia											

Entered by: ~~ABR~~ 9/19/19
 DE by: AUM 10/7/19

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

SIO: 90300 HA: 16285

STORET STATION NUMBER: G2WA0008 ✓	DATE (M/D/Y) 09/11/2019 ✓	LAKE NAME Merritt's Mill Pond ✓		FIELD ID / NAME: G2WA0008 ✓
ECO-REGION:	COUNTY: Jackson	SAMPLING LOCATION/DESCRIPTION: Merritt's Mill Pond Mid Under Powerlines		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 ☒ 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 ☒ 19	Diverse, expected native vegetation (emergent or submersed), less than 5% nuisance taxa 20 19 18 17 16	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	Large masses (21%- 40%) of nuisance macrophytes (e.g., Hydrilla, hyacinth, cattail, etc.) or algal mats 10 9 8 7 6	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 ☒ 14	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
Bottom Substrate Quality ☒ 7	Diverse mixture of sand, detritus, with small amounts of CPOM/mud/muck. SAV may be present 20 19 18 17 16	Mixture of sand or clay and detritus with higher % CPOM/mud/muck content. SAV may be present 15 14 13 12 11	Moderate layer of CPOM/mud/muck, or hardpacked sand only, or moderate algal growth (mats or Chara) on bottom 10 9 8 7 6	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 Alterations ☒ 12	Very few man-made structures, roads, or other disturbance adjacent to lake (<10%) 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
Upland Buffer Zone ☒ 13	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
Adverse Watershed Land Use ☒ 9	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 94 ✓	COMMENTS: Grass Carp Present
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ANALYSIS DATE: 9/11/19	ANALYST: Blake Spencer	SIGNATURE: 
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Entered by: ~~846~~ 10/11/19
 Q'd by: AWM 10/7/19
 Authorized: 10/18/19 ~~AWM~~

SRTD: 80300 ✓ RPS: 9457 ✓

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: G2WA0008 County: Jackson Date: 9/11/19 Investigators: Blake Spencer, Evelyn Recerra, Curtis Mussion

Transect (m)	Point 1=right 9=left	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover	Transect (m)	Point 1=right 9=left	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover
0 ✓ 7	1	G	Y		60 ✓	1	G		
	2	N				2	G		
	3	G				3	G		
	4	G				4	G		
	5	N		0.1		5	G		0 ✓
	6	G				6	G		
	7	G				7	G		
	8	G				8	G		
	9	G	Y			9	G		
10 ✓ 7	1	G	Y		70 ✓	1	G		
	2	G				2	G		
	3	G				3	G		
	4	G				4	G		
	5	N		0.1		5	G		0 ✓
	6	N				6	N		
	7	G				7	G		
	8	G				8	G		
	9	G	Y			9	G		
20 ✓ 6	1	G	Y		80 ✓	1	G		
	2	X				2	N		
	3	G				3	G		
	4	N				4	G		
	5	N		0.1		5	N		0 ✓
	6	G				6	N		
	7	G				7	G		
	8	G				8	G		
	9	G	Y			9	G		
30 ✓ 6	1	G	Y		90 ✓	1	G		
	2	G				2	N		
	3	G				3	G		
	4	G				4	G		
	5	N		0.1		5	N		0 ✓
	6	N				6	N		
	7	N				7	N		
	8	G				8	G		
	9	G	Y			9	G		
40 ✓ 4	1	G	Y		100 ✓	1	G		
	2	N				2	N		
	3	N				3	G		
	4	N				4	G		
	5	N		0.1		5	N		0 ✓
	6	N				6	G		
	7	N				7	G		
	8	G				8	G		
	9	G	Y			9	G		
50 ✓ 6	1	G	Y			1	G		
	2	G				2	G		
	3	G				3	G		
	4	N				4	G		
	5	N		0.1		5	N		
	6	N				6	G		
	7	G				7	G		
	8	G				8	G		
	9	G	Y			9	G		

STORET Station Number:

Secchi depth	108
Estimated?	N
# points ranked 4-6	71
total points assessed	98
% points ranked 4-6	72%

(Exclude X's)	
Check accompanying data collected at same site/date.	
Algal mat sample	✓
Linear Veg Survey	
Habitat Assessment	✓
SCI/Biorecon	
Water sample	✓
RQ- 2019-09-09-30	

Algal Thickness Rank	
N	rough, no algae, slimy, algae up to 1mm
3	>1mm - 6mm
4	>6mm - 20mm
5	>20mm - 10 cm
6	>10 cm

(> 3 considered smothered)

(N to 1 mm)
 (3) 6mm
 (4) 20mm
 (5) 10cm
 (6)

Record "N" and check "Estimated" for points deeper than the Secchi depth; algae are presumed absent. Check "Estimated" if thickness estimated for deep points which can be seen but not reached.
 Record "X" for points shallower than Secchi depth for which substrate cannot be seen or reached with the hand. No estimated rank.
 Record canopy cover as the number of small densiometer quadrants (out of 96) that HAVE canopy cover. Measure facing upstream at point 4, 5, or 6.
 Collect algal mat sample following DEP SOP FS 7240 if the percentage of total sampled points with a thickness rank of 4, 5, or 6 is >20%.

DEP FORM FD 9000-31: LAKE OBSERVATION FIELD SHEET

Entered by: AMM 9/19/19
QC by: AMM 10/7/19

SAMPLE ID: 80300 ✓ MACROPHYTE ID: _____ LATITUDE: 30.7699
COUNTY: Jackson STORET #: G2WA0008 ✓ LONGITUDE: -85.1731
DATE: 09/11/2019 ✓ TIME: 10:08 AM SAMPLING AGENCY: FDEP
SITE NAME: Merritt's Mill Pond Mid under power lines WBID: 180A
FIELD ID/NAME: G2WA0008 LAKE SIZE: _____ RQ: 2019-09-09-30

WATERSHED / LAKESIDE FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category – from GIS) : Forest/Natural <u>35%</u> Silviculture _____ Field/Pasture _____ Agricultural _____ Residential <u>65%</u> Commercial _____ Industrial _____ Other (Specify) _____						LANDSCAPE DEVELOPMENT INTENSITY (100 m buffer) LDI: <u>2.94</u>				
Local Watershed Erosion (select one) : ☐ None ☒ Slight ☐ Moderate ☐ Heavy Local Watershed NPS Pollution : ☐ No evidence ☒ Slight ☐ Moderate ☐ Heavy						Artificially Impounded ☐ Yes ☐ No				
STORMWATER INPUTS <u>14</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>12</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>13</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 # <u>See Field</u> Exp. Date: <u>Sheet</u> 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>26.2</u> <u>7.99</u> <u>10.89</u> <u>134.5</u> <u>259.3</u> <u>0.12</u> Mid-Depth: _____ Bottom: <u>1.5</u> <u>25.9</u> <u>7.90</u> <u>11.73</u> <u>144.4</u> <u>257.3</u> <u>0.12</u> Meter ID: <u>2019-09-09-30</u>						Clarity: ☒ Clear ☐ Opaque ☐ Turbid ☐ Slightly Turbid Color: ☒ Clear ☐ Tannic ☐ Green SECCHI (M) <u>2.0</u> Total Station Depth (M) <u>2.0</u> VOB ☒					
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: Absent Rare Common Abundant Periphyton ☐ ☐ ☐ ☒ Nuisance Plants ☐ ☒ ☐ ☐ Submersed Plants ☐ ☐ ☐ ☒ Exotic Apple Snails ☐ ☒ ☐ ☐					
Additional Notes:											
Weather Conditions :											
SAMPLING TEAM: <u>Blake Spencer, Curtis Mussan, Evelyn Becerra</u>						SIGNATURE: <u>[Signature]</u>			DATE: <u>9/11/19</u>		

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: 145104543

RQ: 2019-09-09-30

Project: MMP RMAP

- 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 _____

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.	Blake Spencer	9/11/19	0720	21.6	761.9	9.81	8.84	101.0	—	1-085	P/F	L/F
ICV			0728	22.1	761.9	9.73	8.82	101.0	—	—	P/F	L/F
CCV	Blake Spencer	9/11/19	1608	24.6	759.7	9.32	8.61	104.1	—	—	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.	Blake Spencer	9/11/19	0731	190619F	06/2020	1000	1000	P/F	L/F
ICV	Blake Spencer	9/11/19	0732	190619F	06/2020	1000	1000	P/F	L/F
CCV	Blake Spencer	9/11/19	1611	2908C81	08/2021	1025	99.9	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.	Blake Spencer	9/11/19	0735	190616B	12/2020	7.01	22.7	7.01	-36.9	P/F	L/F
Calibr.			0740	190618A	12/2020	4.00	23.0	4.00	137.6	P/F	L/F
Calibr.			0742	190618C	12/2020	10.02	23.0	10.02	-207.3	P/F	L/F
ICV			0744	190618C	12/2020	10.02	23.0	10.01	-207.3	P/F	L/F
CCV	Blake Spencer	9/11/19	1618	190618A	12/2020	4.01	26.1	4.17	129.6	P/F	L/F
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 _____, slope from 4 to 7 _____ (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: _____

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	Blake Spencer	9/11/19	0745	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:

Customer: WAS-SECT

Requester: Curtis Musson

Field Report Prepared By: Curtis Musson

Project ID: BMAP

Collected By: Curtis Musson

Sampling Agency: FDEP

Location		WIN ID / FILED ID →		Collection (comp begin or grab)		Eastern		Composite end		Bottle Group(s)	
Field ID		G2WA0009		Grab	Date 9-11-19	Time 9:53	Central	Date	Time	(See pg 2)	
WINSTORET #	Location	Merritt's Mill Pond 500 meters upstream of dam		Matrix (type, e.g., Salt, Fresh, etc)	Fresh		Diss. Oxygen	145.1			
Latitude		dd	Longitude	Temp (C)	28.1		pH	7.94		A	
		dd		Salinity (ppt)	0.12		Comments				
Location		WIN ID / FILED ID →		Collection (comp begin or grab)		Eastern		Composite end		Bottle Group(s)	
Field ID		G2WA0007		Grab	Date 9-11-19	Time 11:28	Central	Date	Time		
WINSTORET #	Location	Merritt's Mill Pond 600 meters downstream of Jackson Blue Sp		Matrix (type, e.g., Salt, Fresh, etc)	Fresh		Diss. Oxygen	97.9		A	
Latitude		dd	Longitude	Temp (C)	21.2		pH	8.00			
		dd		Salinity (ppt)	0.13		Comments				
Location		WIN ID / FILED ID →		Collection (comp begin or grab)		Eastern		Composite end		Bottle Group(s)	
Field ID		G2WA0008		Grab	Date 9-11-19	Time 10:08	Central	Date	Time		
WINSTORET #	Location	Merritt's Mill Pond mid under powerlines		Matrix (type, e.g., Salt, Fresh, etc)	Fresh		Diss. Oxygen	134.5		A	
Latitude		dd	Longitude	Temp (C)	26.2		pH	7.99			
		dd		Salinity (ppt)	0.12		Comments				
Location		WIN ID / FILED ID →		Collection (comp begin or grab)		Eastern		Composite end		Bottle Group(s)	
Field ID		G2WA0008		Grab	Date 9-11-19	Time 10:08	Central	Date	Time		
WINSTORET #	Location	Merritt's Mill Pond mid under powerlines		Matrix (type, e.g., Salt, Fresh, etc)	Fresh		Diss. Oxygen	134.5		B	
Latitude		dd	Longitude	Temp (C)	26.2		pH	7.99			
		dd		Salinity (ppt)	0.12		Comments				

Relinquished By: Curtis Musson	Date/Time: 9-11-19/3:52	Shipping Method: Drop off	Number of Coolers Shipped: 1	Received By: [Signature]	Date/Time: 9/11/19 1552
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**Florida Department of Environmental Protection
Central Laboratory Submittal Form**

Customer: WAS-SECT

Requester: Curtis Musson

Field Report Prepared By:

Project ID: BMAP

Collected By: Curtis Mussen

Sampling Agency:

[illegible]

Group: A	Bottle Type:	P-1L	# of Bottles: 4	Preservative:	ICE	Enter Number of Bottles Sent to Lab
	ALKALINITY					
	TURBIDITY					
	W-CL-IC					
	W-COLOR					
	W-F					
	W-SO4-IC					
	W-TDS					
	W-TSS					
Group: A	Bottle Type:	BP-1L	# of Bottles: 4	Preservative:	ICE	Enter Number of Bottles Sent to Lab
	CHLSUITE-W					
Group: A	Bottle Type:	P-500ML	# of Bottles: 4	Preservative:	HNO3	Enter Number of Bottles Sent to Lab
	W-ICP					
	W-ICPMS					
Group: A	Bottle Type:	P-500ML	# of Bottles: 4	Preservative: ICE And H2SO4		Enter Number of Bottles Sent to Lab
	W-NH3					
	W-NO2NO3					
	W-S-A-TP					
	W-TKN					
	W-TOC					
Group: A	Bottle Type:	P-125ML	# of Bottles: 4	Preservative: FILTER-ICE		Enter Number of Bottles Sent to Lab
	W-PO4-F					
Group: B	Bottle Type:	PT-50ML	# of Bottles: 1	Preservative: ICE		Enter Number of Bottles Sent to Lab
	ALGAL_ID					

Cooler Packing Worksheet for Request: RQ-2019-09-30

Merrit's Mill Pond BMAP

Ship Cooler On: 9/6/2019

Customer/Project: WAS-SECT/BMAP

Assigned To: KLUG_K

Requester: Curtis Musson

Priority: 3

850-245-8453

2600 Blair Stone Rd

Tallahassee, FL 32399

Attn: Curtis Musson

Comments:

Group A: Nutrients, Metals x4

Group B: Algal_ID x1

Packing Notes:

No Fedex Labels

No Trash Bags

1 - case of nitric acid/2 sets of labels

Requested Analyses:

Bottle Group: A

of Sites: 4

Container ID: P-1L

Qty: 4 Preservation: ICE

Lot # 00074723

Description: Plastic Bottle 1L

Analysis

ALKALINITY

TURBIDITY

W-CL-IC

W-COLOR

W-F

W-SO4-IC

W-TDS

W-TSS

Description

Alkalinity in aqueous matrices as mg CaCO3/L

Turbidity in aqueous matrices

Chloride in aqueous matrices

True Color measured at 450 nm

Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)

Sulfate in aqueous matrices

Total Dissolved Solids in aqueous matrices

Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample

Container ID: BP-1L

Qty: 4 Preservation: ICE

Lot # 1259820

Description: Brown Plastic Bottle 1L

Analysis

CHLSUITE-W

Description

Phytoplankton chlorophyll-a corrected, uncorrected, and phaeophytin by spectrophotometry

Container ID: P-500ML

Qty: 4 Preservation: HNO3

Lot # 00074433

Description: Plastic Bottle 500 mL

Affix RED nitric acid dot to container.

Analysis

W-ICP

W-ICPMS

Description

Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects

Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects

Container ID: P-500ML

Qty: 4 Preservation: ICE And H2SO4

Lot # 00074433

Description: Plastic Bottle 500 mL

Affix YELLOW sulfuric acid dot to container.

Analysis

W-NH3

W-NO2NO3

W-S-A-TP

W-TKN

W-TOC

Description

Ammonia in aqueous matrices as mg N/L

Nitrite/Nitrate in aqueous matrices as mg N/L

Total Phosphorus in aqueous matrices as mg P/L

Total Kjeldahl Nitrogen in aqueous matrices

Nonpurgeable Organic Carbon in aqueous matrices

Container ID: P-125ML

Qty: 4 Preservation: FILTER-ICE

Lot # 00072954

Description: Plastic Bottle 125 mL

Analysis

W-PO4-F

Description

Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L

Bottle Group: B

of Sites: 1

Container ID: PT-50ML

Qty: 1 Preservation: ICE

Lot # 08818009

Description: Plastic Tube 50 mL

Analysis

ALGAL_ID

Description

Qualitative assessment of algal taxa present without counts

Cooler Packed By: K12 Number of Coolers: 1 Date: 9.3.19

Kit must also include:

- ☒ Field Sheets
- ☒ Temperature Control Bottle
- ☐ FedEx Bills, if applicable
- ☐ Plastic Bags/Zip Ties
- ☒ Acid Labels (sets of 24)

If Preservation Included:

ID	<u>Nitric Acid</u>	Exp	<u>7.8.20</u>	Lot #	<u>NA9189080</u>
ID		Exp		Lot #	
ID		Exp		Lot #	
ID		Exp		Lot #	
ID		Exp		Lot #	

PLEASE RETURN ALL COOLERS FOR RQ-2019-09-09-30