

RQ-2019-07-08-46

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
- \\Fidep1\wqap\NW ROC\TMDL\WIN_Station Creation
- ☒ Date sampled Date: 07/11/2019 initials: FB
- ☒ Update MAT Date: 07/11/2019 initials: FB
- ☒ Update "SMP Tracker" Date: 07/11/2019 initials: FB
- ☒ Photos put into archive Date: 07/24/2019 initials: FB ☐ NA
- ☒ RQ Sheet – from LIMS (display/print request)
- ☒ Field Sheets initialed/dated @ "Scan/Save Field Sheets" then scanned (with calibration logs) and saved into:
- Scans_ToBeProcessed* Date: 07/24/2019 initials: FB
- ☒ 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 Collected. Only one of two stations sampled; G4NW0084, Fuller Lake Middle.

Date of Request: 17-JUN-2019
 Created By: KING_M On: 17-JUN-2019
 Modified By: WATTS_J On: 18-JUN-2019
 Customer: NW-DIST
 Project: SMP
 Division: Division of Environmental Assessment and Restoration
 District: NWROC
 Sampling Event: LVI FULLER & ALLEN LAKE

Send Coolers To:

Phone: 850-595-8300
 160 Government Center
 Suite 208
 Pensacola, FL 32502-5794
 Attn: Michael King

Program Module Number:

Priority: 3
 Event Status: R
 Criminal Investigation: NO
 Chemistry Request Reviewed By: WATTS_J On: 18-JUN-2019
 Biology Request Reviewed By: JASROTIA_P On: 18-JUN-2019
 Sampling Kit Required: YES Ship on: 28-JUN-2019
 Sampling Kit Shipped: YES On: 27-JUN-2019
 Sampling Kit Packed By: KLUG_K
 Preservatives Needed: NO
 Date to Receive Samples: 08-JUL-2019
 Received By: KLUG_K On: 12-JUL-2019

Send Final Report To:

160 Government Center
 Suite 208
 Pensacola, FL 32502-5794
 Attn: Chery Bunch

Report Type: Final Only
 FTP Data: NO
 QC Report: YES
 Date Log: NO
 Authorization Log: NO

Comments: Group A: Freshwater
 (WBID 959G, 959H) Nutrients

Bottle Group A (Water) With 2 Samples:

Bottle Type: P-1L	Number of Bottles: 2	Preserved With: ICE
ALKALINITY Template: DEFAULT	(SM 2320 B-97) Alkalinity in aqueous matrices as mg CaCO ₃ /L	
Total Alkalinity		
TURBIDITY Template: DEFAULT	(EPA 180.1 Rev. 2.0) Turbidity in aqueous matrices	
Turbidity		
W-CL-IC Template: DEFAULT	(EPA 300.0 Rev. 2.1) Chloride in aqueous matrices	
Chloride		
W-COLOR Template: DEFAULT	(SM 2120 B) True Color measured at 450 nm	
Color (true)		
W-F Template: DEFAULT	(SM 4500 F-C-97) Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	
Fluoride		
W-SO4-IC Template: DEFAULT	(EPA 300.0 Rev. 2.1) Sulfate in aqueous matrices	
Sulfate		
W-TDS Template: DEFAULT	(SM 2540 C-97) Total Dissolved Solids in aqueous matrices	
TDS		
W-TSS Template: DEFAULT	(SM 2540 D-97) Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	
TSS		
Bottle Type: BP-1L	Number of Bottles: 2	Preserved With: ICE
CHLSUITE-W Template: DEFAULT	(SM 10200 H (mod.)) Phytoplankton chlorophyll-a corrected, uncorrected, and phaeophytin by spectrophotometry	
Chlorophyll-a, Corrected		
Chlorophyll-a, Uncorrected		
Phaeophytin-a		
Bottle Type: TEST HAS NO	Number of Bottles: 2	Preserved With: ICE
NW-UWF-ECQ Template: DEFAULT	(SM 9223 B Quanti-Tray) E. coli by Colilert-18/QT by UWF in Pensacola	
Escherichia Coli-Quanti-Tray		
Bottle Type: QPCR-P-500ML	Number of Bottles: 2	Preserved With: ICE

Bottle Group A (Water) With 2 Samples:

Bottle Type: QPCR-P-500ML	Number of Bottles: 2	Preserved With: ICE
PCR-FILTER	Template: DEFAULT	(SOP-PCR-4.0) Preparation of Samples by Filtration and held for qPCR Analysis
*HF183 - Human Source Marker		
Bottle Type: BG-500ML	Number of Bottles: 2	Preserved With: ICE
W-E8321-DI	Template: DEFAULT	(EPA 8321B) Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS
*Acesulfame K		
*AMPA		
*Endothall		
*Glufosinate		
*Glyphosate		
*Sucralose		
W-E8321-MS	Template:	(EPA 8321B) Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS
*Acetaminophen		
*Carbamazepine		
*Fluridone		
*Hydrocodone		
*Ibuprofen		
*Imazapyr		
*Naproxen		
*Primidone		
*Pyraclostrobin		
*Triclopyr		
2,4-D		
Bentazon		
Diuron		
Fenuron		
Imidacloprid		
Linuron		
MCP		
Bottle Type: P-500ML	Number of Bottles: 2	Preserved With: ICE And H2SO4
W-NH3	Template: DEFAULT	(EPA 350.1 Rev. 2.0) Ammonia in aqueous matrices as mg N/L
Ammonia-N		
W-NO2NO3	Template: DEFAULT	(EPA 353.2 Rev. 2.0) Nitrite/Nitrate in aqueous matrices as mg N/L
NO2NO3-N		
W-S-A-TP	Template: DEFAULT	(EPA 365.1 Rev. 2.0) Total Phosphorus in aqueous matrices as mg P/L
Total-P		
W-TKN	Template: DEFAULT	(EPA 351.2 Rev. 2.0) Total Kjeldahl Nitrogen in aqueous matrices
Kjeldahl Nitrogen		
W-TOC	Template: DEFAULT	(SM 5310 B-00) Nonpurgeable Organic Carbon in aqueous matrices
Organic Carbon		
Bottle Type: P-125ML	Number of Bottles: 2	Preserved With: FILTER-ICE
W-PO4-F	Template: DEFAULT	(EPA 365.1 Rev. 2.0) Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L
O-Phosphate-P		

* - The laboratory is not NELAP certified for this analyte/method, or certification is not applicable.

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: 154179

RQ- 2019-07-08-46

Project: 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

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.	M. Bearden	7/11/19	0732	23.3	762	8.5	8.50	99.5		1.02	P/F	L/F
ICV	✓	✓	0734	23.3	762	8.5	8.52	99.5			P/F	L/F
CCV	✓	✓	1618	24.4	761	8.4	8.43	100.7			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 mhos/cm	Meter Reading μ mhos/cm	Pass / Fail	Lab / Field
Calibr.	MB	7/11	0737	190116A	1/20	1000	1000	P/F	L/F
ICV	✓	✓	0745	190618A	6/20	100	104.1	P/F	L/F
CCV	✓	✓	1620	190618A	6/20	100	104.9	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.	MB	7/11	0739	2811803	10/20	7.01	24.3	7.01	-58.5	P/F	L/F
Calibr.	✓	✓	0740	2902818	11/21	4.00	24.5	4.00	-122.8	P/F	L/F
Calibr.	✓	✓	0742	4904609	9/20	10.01	24.3	10.01	-230.9	P/F	L/F
ICV	✓	✓	0743	2902818	11/21	4.00	24.4	3.96		P/F	L/F
CCV	✓	✓	1622	2811803	10/20	7.00	22.0	7.16		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						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:

Site Name Fuller Lake Middle

Date: 07/11/19

Field ID G3NW0084 Storet G3NW0084

Project: SMP/ TMDL Studies

Visit ID 79984

RQ: 2019-07-08-46

VPDB ID 11425

LIMS ID: 2102728

HA ID 16146

WBID: 959G

☒ LVI

☒ Sample Site Created in SBIO

☒ Phys/Chem entered in SBIO

☒ HA entered in SBIO Initial FB, 7/24/2019

☐ Date and Initial QA: SS, 07/29/2019

☒ RPS entered in SBIO Initial FB, 7/24/2019

☐ Date and Initial QA: _____

☒ LVI entered in SBIO Initial FB, 7/24/2019

☐ Date and Initial QA: SS, 07/29/2019

☒ Plants getting verified

Date submitted: 07/11/2019

☒ Plants verified

Date returned: 07/11/2019 In House FB

☒ VPDB authorized in SBIO

☐ Date and Initial: 07/29/2019, FB

☒ VPDB score: 82

☒ If SMP, scanned into database

Notes.



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2019

Data Qualified?

Yes / No

WIN Station Name: Fuller Lake Middle

Date: 7/11/2019
(mm/dd/yyyy)

WIN/ Field ID: G3NW0084

WBID: 959G

Latitude: 30.37284634

County: Walton

ORG ID: 21FLPNS

Longitude: -86.31743107

Receiving Body of Water: Gulf of Mexico

RQ-2019-07-08-46

Sampling Team Members				WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
Frank Butera								
Matt Bearden								

Sampling Equipment		
☒ Sample Container	☐ Van Dorn	☐ Pole
☐ Carboy	☒ Syringe	
☐ Dipper	☐ Other	
Depth Measured with <u>Seacchi Disc</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# 154179 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 (PPTH)	Sp COND (µmhos/cm)	Temp. (C°)
EST	<u>1225</u>	<u>2.3</u>	<u>0.3</u>	<u>0.0</u>	<u>6.31</u>	<u>85.7</u>	<u>4.97</u>	<u>0.04</u>	<u>87.3</u>	<u>31.4</u>
<u>CEN</u>			<u>1.8</u>		<u>5.80</u>	<u>75.9</u>	<u>4.90</u>	<u>0.04</u>	<u>87.2</u>	<u>29.7</u>

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

SBIO ID Numbers: SBIO-ID: 79984 HA-ID: 16146 RPS-ID: Macrophyte-ID: 11425 LIMS#: 2102728

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	SA8344070	12/10/2019	☒ <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	☒ CHLSUITE-W	☒ Ice			
Physical/Aggregate (Fresh)	☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-Cl-IC / W-COLOR / W-SO4-IC / W-TDS	☒ Ice			
Physical/Aggregate (Marine)	☐ Alkalinity / W-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-E8321-DI ☒ W-E8321-MS	☒ Ice			
Pesticides	☐ W-PSNP-TQ ☐ W-CT-CL-R ☐ W-E8321-DI ☐ W-PCL-SQ-R ☐ WE8321-MS ☐ W-CARB-AA	☐ Ice			
Phytoplankton	☐ DTY-QN-C ☐ PKD-QN-C				

Notes: No metals sample required for this event.

Field/WIN ID → G3NW0084

Location: Fuller Lake Middle

Signature: Frank Butera Date: 7/11/2019

LIMS EVENT ID: WIN Import ID: 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: 79984 MACROPHYTE ID: _____ LATITUDE: N 30.37284634
 COUNTY: Walton (Miramar Beach) STORET #: G3NW0084 LONGITUDE: W -86.31743107
 DATE: 7/11/2019 TIME: 12:25 CTZ SAMPLING AGENCY: FL DEP - NWROC (21FLPNS)
 SITE NAME: Fuller Lake Middle WBID: 959G
 FIELD ID/NAME: G3NW0084 LAKE SIZE: 45 RQ: 2019-07-08-46

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:

Land Use Source & Year: _____

STORMWATER INPUTS

20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1

LAKESIDE ALTERATIONS

20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1

BUFFER ZONE

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:

	Depth (M)	Temp. (°C)	pH (SU)	D.O. (MG/L)	D.O. Sat. (%)	Cond. (UMHO/CM)	Salinity (PPT)
Top:	12.25	31.4	4.97	6.31	85.7	87.3	0.04
Mid-Depth:	0.3						
Bottom:	1.8	29.7	4.90	5.80	75.9	87.2	0.04

Meter ID: 154179

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

SECCHI (M) 0.6 **Total Station Depth (M)** 2.3
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 ☐ Other (Specify): _____
☐ Anaerobic

Biological Communities:
 LVI Conducted? ☒ Yes ☐ No
 Phytoplankton Sample Taken? ☐ Yes ☒ No
 Sample Preserved? ☐ Yes ☐ No
 Lot #: _____ Exp Date: _____
 Algal Bloom/Algal ID Sample Taken? ☐ Yes ☐ No
 Active Vegetation Mgmt? ☒ Yes ☐ No ☐ Don't Know

Abundance:

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

Additional Notes:
Panicum repens
HOA currently spraying it

Weather Conditions :

SAMPLING TEAM: Frank Butera, Matt Bearden SIGNATURE: [Signature] DATE: 7/11/2019

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

Store/ WIN ID NUMBER: G3NW0084	DATE (M/D/Y) 07/11/2019	LAKE NAME: Fuller Lake Middle		FIELD ID / NAME: G3NW0084
WBID: 959G	COUNTY: Walton	SAMPLING LOCATION/DESCRIPTION: Miramar Beach, FL		LAKE SIZE: 45 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 6	Secchi > 3 m Or YOB 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 12	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 20	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 15	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 19	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 19	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 19	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 105	COMMENTS: Tannic			

ANALYSIS DATE: 7/11/19	ANALYST: Frank Butera,	SIGNATURE: <i>Frank Butera</i>
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SBIO ID: 79984

HA ID: 16146

DEP FORM FD 9000-27 LAKE VEGETATION INDEX FIELD SHEET

Waterbody: Fuller Lake (Middle)				County: Walton (Miramar Beach)				Date: 07/11/2019			
Analyst: F. Butera				Signature: <i>[Signature]</i>				STORET: G3NW0084			
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			
SBIO ID <u>79984</u>	3	6	9	12	Collect ed? (✓)	Macro ID <u>11425</u>	3	6	9	12	Collect ed? (✓)
SPECIES						SPECIES					
Acer rubrum						Habenaria repens					
Alternanthera philoxeroides						Hydrilla verticillata					
Andropogon sp.						Hydrocotyle sp.					
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					
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						Limnobia 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					
Cyrtilla racemiflora						*Ludwigia					
Decodon verticillatus						Luziola fluitans (H. carolinensis)					
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						Mikania scandens					
*Eleocharis baldwinii						Mimosa pigra					
*Eleocharis <u>virginiana</u>						Myrica cerifera					
Eleocharis cellulosa						Hypericum brachyph					
Eleocharis equisetoides						Unk. Ludwigia?					
Eleocharis interstincta						Stroph. Bideria					
*Eriocaulon compressum						Stroph. Bideria					
*Eriocaulon decangulare						Stroph. Bideria					
Eupatorium capillifolium						Stroph. Bideria					
*Fuirena						Stroph. Bideria					
Fuirena scirpoidea						Stroph. Bideria					
Gordonia lasianthus											

RQ-2019-07-08-46

LIMS ID 210278

FORM FD 9000-27: LAKE VEGETATION INDEX FIELD SHEET[illegible]

Station: Fuller Lake Middle
 GPS Dec. 30.37285 x -86.31743
 Storet: G4NW0084 WBID 959G
 Sample ID : 79844
 Macro ID: 11425

Sampled : 07/11/2019
 Sampled By. F.Butera, M. Bearden
 Location. Santa Rosa Beach, Walton Co.
 Receiving Waters: Gulf of Mexico
 LIMS ID: 2102728

	Taxa	3	6	9	12	Coll.	Verified
1	<i>Brasenia schreberi</i>	1	1	1	1		
2	<i>Cephalanthus occidentalis</i>	1	1	1			
3	<i>Cladium jamaicense</i>	C		C	D		
4	<i>Cyrilla racemiflora</i>		1	1	1		
5	<i>Eleocharis baldwinii</i>		1		1	Y	FB Lab
6	<i>Eleocharis equisetoides</i>	1	1	1	1		
7	<i>Eleocharis vivipara</i> (submersed)		1		1		
8	<i>Eupatorium capillifolium</i>	1					
9	<i>Fuirena scirpoidea</i>	1	1	1	1		
10	<i>Hydrocotyle</i> sp.			1	1		
11	<i>Hypericum brachyphyllum</i>	1	1	1	1		
12	<i>Lachnanthes carolina</i>				1		
13	<i>Ludwigia</i> (Unknown Nativity)*	1				Y	FB Lab
14	<i>Myrica cerifera</i>	1		1			
15	<i>Nuphar</i> sp.	1	1	1			
16	<i>Nymphaea odorata</i>	1	1	1			
17	<i>Nymphoides aquatica</i>	1	1	1			
18	<i>Osmunda cinnamomoea</i>	1	1				
19	<i>Panicum hemitomon</i>		1				
20	<i>Panicum repens</i>		C	1	1		
21	<i>Pontederia cordata</i>	1	1	1	1		
22	<i>Sagittaria lancifolia</i>	1	1		1		
23	<i>Salix carolinana</i>	1					
24	<i>Triadenum virginicum</i>	1		1	1		
25	<i>Typha</i> sp.	1					
26	<i>Utricularia floridana</i>	C	C	C	1		
27	<i>Zizaniopsis milaceae</i>		1	1	1	Y	FB Lab
	Taxa per section	18	17	16	15	Herb. Taxa	22
	Exotic Present	0	0	0	0	Woody Taxa	4
	Avg. taxa per section	17	Exotics per Section: 0.75			Ferns	1
	sections with exotics	3				Macro Algae	0
	Exotic Taxa	1				Total Taxa	27

DEP-SOP-001/01
FS 7000 General Biological Community Sampling

Form FD 9000-2: COMPOSITE LAKE SAMPLING SHEET (< 1000 ACRES)

Date: 7/11/2014	Name of Lake: Fuller Lake Middle	Gear used: PONAR	EKMAN	OTHER	
Comments:					
Drop #	Depth (m)	Sediment Type (circle all that apply)	Drop #	Depth (m)	Sediment Type (circle all that apply)
1		sand, silt/clay, CPOM, muck, SAV	7		sand, silt/clay, CPOM, muck, SAV
2		sand, silt/clay, CPOM, muck, SAV	8		sand, silt/clay, CPOM, muck, SAV
3		sand, silt/clay, CPOM, muck, SAV	9		sand, silt/clay, CPOM, muck, SAV
4	2.3	sand, silt/clay, CPOM, muck, SAV	10		sand, silt/clay, CPOM, muck, SAV
5		sand, silt/clay, CPOM, muck, SAV	11		sand, silt/clay, CPOM, muck, SAV
6		sand, silt/clay, CPOM, muck, SAV	12		sand, silt/clay, CPOM, muck, SAV

CPOM = coarse particulate organic matter; SAV = submerged aquatic vegetation

WIN ID:G3NW0084

Field ID G3NW0084

Project. TMDL Studies (SMP 2018)

SBIO ID:

WBID 959G

Paste map here and show location of each dredge drop and where water chemistry parameters were collected.

Revision Date: February 1, 2004

Photo Log

Storet G3NW0084

Station Name: Fuller Lake

Date: 07/11/2019

Samplers: F. Butera, M. Bearden

1 Ludwigia 1

2 Ludwigia 2

3 East

4 Shoreline Veg.

5 _____

6 _____

7 _____

8 _____

9 _____

10 _____

11 _____

12 _____

13 _____

14 _____

15 _____

16 _____

17 _____

Notes.

**Florida Department of Environmental Protection
Central Laboratory Submittal Form**

Customer: NW-DIST

Project ID: SMP

Requester: Michael King

Collected By: Frank Butera Matt Bearden

Field Report Prepared By:

Sampling Agency:

[illegible]

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:	TEST HAS NO BOTTLE	# of Bottles: 2	Preservative:	ICE	Enter Number of Bottles Sent to Lab	* 1
	NW-UWF-ECQ						* UWF Confed Lab.
Group: A	Bottle Type:	QPCR-P-500ML	# of Bottles: 2	Preservative:	ICE	Enter Number of Bottles Sent to Lab	1
	PCR-FILTER						
Group: A	Bottle Type:	BG-500ML	# of Bottles: 2	Preservative:	ICE	Enter Number of Bottles Sent to Lab	1
	W-E8321-DI						
	W-E8321-MS						
Group: A	Bottle Type:	P-500ML	# of Bottles: 2	Preservative:	ICE And H2SO4	Enter Number of Bottles Sent to Lab	1
	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						

H2SO4
LOT# SA6344678
EXP: 12/10/2019

SAMPLE TRANSMITTAL FORM
Document Reference # 05.1.0

Project: FDEP

Method of transport: Drop off on ice by automobile

Samples delivered by: FBS of FDEP

Sample received by: Jerry Boas of WRL

Instructions: Fill in all fields except "Lab ID" on sample transport form completely. Each sample container must use a separate line. Place this form in a waterproof bag and place it with the samples for transport. If a field log or other chain of custody is attached, that information may be referenced on this form and the log or COC attached.

Laboratory: Wetlands Research Laboratory

Page 1 of 1
Date/Time: 7-11-19 12:25
Date/Time: 7-11-19 15:04

Sampler's initials: FBS

Lab ID	Sample ID	Matrix ¹	Type ²	Container Type	Analyses Requested	Preservative	Sample (°C) ³	Sampling Date/Time
19-45346	G3NW0084, Fuller Lake Middle, Fresh Water.	SW	G	Sterile plastic	Escherichia Coli	Ice/NazS203	3.6	7-11-2014/12:25
Field/WIN ID → G3NW0084 Location: Fuller Lake Middle								
G3NW0085, Allen Lake (Middle), Fresh Water Field/WIN ID → G3NW0085 Location: Allen Lake (Middle)								

Comments: sample container lot# #18145 Exp. 06/30/2021

RQ-2019-07-08-46

Contact organization: FDEP NW/ROC

Address: 160 W Governmental Street, suite 208, Pensacola, FL 32502

Matrix: SW = surface water, PW = pore water, GW = ground water, S = soil/sediment, X =

Contact name: Mike King

Phone: (850) 595-8300

Sampler's name: Frank Butera

³ Recorded using: IRT-2