RQ-2019-07-08-34

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: 07/09/2019 initials: FB

☑ Update MAT Date: 07/09/2019 initials: FB

☑ Update "SMP Tracker" Date: FB initials: FB

☑ Photos put into archive Date: 07/22/2019 initials: FB ☐ NA

☑ RQ Sheet – from LIMS (display/print request)

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

Scans_ToBeProcessed Date: 07/22/2019 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: Reference Streams 2019. SBIO Survey EcoRegRef

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: 155077 RQ-2019-07-0234 Project: Reference Streams

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. Beadle	7/9/19	0721	27.0	759.3	8.0	7.96	108.0		1.10	(P) / F	(P) / F
ICV	↓	↓	0723	26.9	759.4	8.0	7.97	99.9			(P) / F	(P) / F
CCV	↓	↓	1525	21.5	759.1	8.8	8.88	100.7			(P) / F	(P) / 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 µmhos/cm	Meter Reading µmhos/cm	Pass / Fail	Lab / Field
Calibr.	MB	7/9	0725	190116A	1/20	1000	1000	(P) F	(P) F
ICV	↓	↓	0736	190618A	6/20	100	103.7	(P) F	(P) F
CCV	↓	↓	1528	190618A	6/20	100	103.7	(P) F	(P) F
CCV								P / F	L / F

Conductivity Acceptance criteria ± 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	7/9	0727	2811803	10/20	7.00	26.7	7.00	-41.5	(P) / F	(P) / F
Calibr.	↓	↓	0728	2902818	1/21	4.00	26.8	4.01	145.1	(P) / F	(P) / F
Calibr.	↓	↓	0730	4904E09	9/20	10.00	26.6	9.98	-210.0	(P) / F	(P) / F
ICV	↓	↓	0733	2902818	1/21	4.00	26.7	3.93		(P) / F	(P) / F
CCV	↓	↓	1530	2811803	10/20	7.00	24.3	7.04		(P) F	(P) F
CCV										P / F	L / F

pH Acceptance criteria ± 0.2 SU; mV pH 7 Range 0 ± 50; mV pH 4 Range +180 ± 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 ± 5 % or ± 0.05m, whichever is greater.

COMMENTS:

RQ-2019-07-08-34

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: SCIREF
Division: Division of Environmental Assessment and Restoration
District: Northwest District
Sampling Event: REFERENCE STREAMS NW

Send Coolers To:

Phone: 850-595-0605
160 Government Center
Suite 208
Pensacola, FL 32502-5794
Attn: Michael King

Send Final Report To:

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

Program Module Number:
Priority: 3
Event Status: S
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: 25-JUN-2019
Sampling Kit Packed By: SHAIK_A
Preservatives Needed: NO
Date to Receive Samples: 08-JUL-2019
Received By:

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

Comments: Group A: Nutrients, Bacteria, PCR, Metals, Tracers, Q-PSNP-TQ

Group B: SCI, Algae_ID

Bottle Group A (Water) With 1 Samples:

Bottle Type: P-1L Number of Bottles: 1 Preserved With: ICE

ALKALINITY Total Alkalinity	Template: DEFAULT	(SM 2320 B-97) Alkalinity in aqueous matrices as mg CaCO3/L
TURBIDITY Turbidity	Template: DEFAULT	(EPA 180.1 Rev. 2.0) Turbidity in aqueous matrices
W-CL-IC Chloride	Template: DEFAULT	(EPA 300.0 Rev. 2.1) Chloride in aqueous matrices
W-COLOR Color (true)	Template: DEFAULT	(SM 2120 B) True Color measured at 450 nm
W-F Fluoride	Template: DEFAULT	(SM 4500 F-C-97) Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)
W-SO4-IC Sulfate	Template: DEFAULT	(EPA 300.0 Rev. 2.1) Sulfate in aqueous matrices
W-TDS TDS	Template: DEFAULT	(SM 2540 C-97) Total Dissolved Solids in aqueous matrices
W-TSS TSS	Template: DEFAULT	(SM 2540 D-97) Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample

Bottle Type: BP-1L Number of Bottles: 1 Preserved With: ICE

CHLSUITE-W Chlorophyll-a, Corrected Chlorophyll-a, Uncorrected	Template: DEFAULT	(SM 10200 H (mod.)) Phytoplankton chlorophyll-a corrected, uncorrected, and phaeophytin by spectrophotometry

Bottle Group A (Water) With 1 Samples:

Bottle Type: BP-1L Number of Bottles: 1 Preserved With: ICE

CHLSUITE-W Template: DEFAULT (SM 10200 H (mod.)) Phytoplankton chlorophyll-a corrected, uncorrected, and phaeophytin by spectrophotometry

Phaeophytin-a

Bottle Type: TEST HAS NO Number of Bottles: 1 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: 1 Preserved With: ICE

PCR-BACR Template: DEFAULT (SOP-PCR-1.4) Detection and quantification of Ruminant specific Bacteroidetes BacR genetic marker with quantitative polymerase chain reaction

*BacR-qPCR

PCR-GFD Template: DEFAULT (SOP-PCR-1.3) Detection and quantification of bird specific Helicobacter GFD genetic marker with quantitative polymerase chain reaction

*GFD-purified-qPCR

PCR-GULL2 Template: DEFAULT (SOP-PCR-1.2) Detection and quantification of coastal bird specific Catellicoccus marimammalium Gull2 genetic marker with quantitative polymerase chain reaction

*GULL2-qPCR

PCR-HF183 Template: DEFAULT (SOP-PCR-1.0) Detection and quantification of human-specific HF183 Bacteroides genetic marker with quantitative polymerase chain reaction

*HF183-qPCR

Bottle Type: BG-500ML Number of Bottles: 1 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
MCPP

Bottle Type: P-500ML Number of Bottles: 1 Preserved With: HNO3

W-ICP Template: (EPA 200.7 Rev. 4.4) Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects

Barium
Calcium
Iron
Magnesium
Potassium
Sodium
Zinc

W-ICPMS Template: (EPA 200.8 Rev. 5.4) Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects

*Boron
Aluminum
Antimony
Arsenic

Bottle Group A (Water) With 1 Samples:

Bottle Type: P-500ML Number of Bottles: 1 Preserved With: HNO3

W-ICPMS Template: (EPA 200.8 Rev. 5.4) Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects

- Cadmium
- Chromium
- Copper
- Lead
- Nickel
- Selenium
- Silver
- Thallium

Bottle Type: P-500ML Number of Bottles: 1 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: 1 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

Bottle Type: BG-1L Number of Bottles: 4 Preserved With: ICE

W-PSNP-TQ Template: DEFAULT (EPA 8270E) Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS

- *Dimethenamid
- *Dithiopyr
- *Fipronil Desulfinyl
- *Oxadiazon
- *Prodiamine
- *Tebuconazole
- Acetochlor
- Alachlor
- Ametryn
- Atrazine
- Atrazine Desethyl
- Azinphos Methyl
- Bromacil
- Butylate
- Chlorpyrifos Ethyl
- Chlorpyrifos Methyl
- Cyanazine
- Demeton
- Diazinon
- Disulfoton
- EPTC
- Ethion
- Ethoprop
- Fenamiphos
- Fipronil
- Fipronil Sulfide
- Fipronil Sulfone
- Fonofos
- Hexazinone
- Malathion
- Metalaxyl
- Metolachlor
- Metribuzin
- Mevinphos

Bottle Group A (Water) With 1 Samples:

Bottle Type: BG-1L Number of Bottles: 4 Preserved With: ICE

W-PSNP-TQ Template: DEFAULT (EPA 8270E) Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS

- Molinate
- Norflurazon
- Parathion Ethyl
- Parathion Methyl
- Pendimethalin
- Phorate
- Prometon
- Prometryn
- Simazine
- Terbufos
- Terbuthylazine

Bottle Group B (Biological) With 1 Samples:

Bottle Type: PT-50ML Number of Bottles: 1 Preserved With: ICE

ALGAL_ID Template: DEFAULT (SOP-AB05) Qualitative assessment of algal taxa present without counts

- *Dominant sample taxon

Bottle Type: PJ-2L Number of Bottles: 2 Preserved With: Formalin

MI-FW-QLDC Template: DEFAULT (SOP-IZ06) No. Taxa of FW macroinverts, qual samp, 20 dipnets.

- *Macroinvert-FW-Qual-DipnetX20-#Taxa-Rep2
- *Stream Condition Index (SCI)

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

Site Name Boiling Creek at Boat Launch

Date: 07/09/2019

Field ID G3NW0385 Storet G3NW0385

Project: Eco Reg Ref Streams

Visit ID 79927

RQ: 2019-07-08-34

RPS ID 9398

LIMS ID: 2101173

VPDB ID 11423

WBID: 517

HA ID 16143

☑ SCI

☐ RPS/LVS Only

☑ Sample Site Created in SBIO

☑ Phys/Chem entered in SBIO

☑ HA entered in SBIO Initial FB 7/22/19 ☐ Date and Initial QA: _____

☑ RPS entered in SBIO Initial FB 7/22/19 ☐ Date and Initial QA: _____

☑ LVS entered in SBIO Initial FB 7/22/19 ☐ Date and Initial QA: _____

☐ < 2 m^2 vegetation

☑ Plants getting verified Date submitted: N/A

☑ Plants verified Date returned: In House

☐ RPS authorized in SBIO ☐ Date and Initial: _____

☐ RPS score: _____

☐ VPDB authorized in SBIO ☐ Date and Initial: _____

☐ VPDB score: _____

☐ SCI complete: _____ SCI Score: _____

☐ If SMP, scanned into database

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2019

Data Qualified? Yes / (No)

WIN Station Name: Boiling Creek at Boat Launch **Date:** 07/09/2019 (mm/dd/yyyy)

WIN/ Field ID: G4NW0385 **WBID:** 517 **Latitude:** 30.57895 (Decimal Degrees)

County: Santa Rosa **ORG ID:** 21FLPNS **Longitude:** -86.90017 (Decimal Degrees)

Receiving Body of Water: Yellow River **RQ-2019-** ~~02-11-27~~ 07-08-34

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

Sampling Equipment
- [x] Sample Container [ ] Van Dorn [ ] Pole
- [ ] Carboy [x] Syringe
- [ ] Dipper [ ] Other
- Depth Measured with
- Equipment ID

Collection Method
- [x] Wading [ ] Canoe/Kayak
- [ ] From Shore [ ] Electric Motor
- [ ] Other [ ] Gasoline Motor

Water Level: Dry/ Pooled/ Low / (Normal) / High / Flooded **Meter ID#** **Matrix:** (Fresh) / Marine / DI

Photos: (Yes) / No **Flow:** No Flow / Intestital / (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	9:40	1.3	0.3	"S"	7.51	90.6	5.07	0.01	15.3	24.9
CEN	9:55		0.8		7.50	90.6	5.09	0.01	15.3	24.9

Biological Samples Collected: None (HA) (SQ) (RPS) (Algae ID) (LVS) LVI Other:

SBIO ID Numbers: (60) SBIO-ID: ~~79927~~ HA-ID: 16143 RPS-ID: 9398 Macrophyte-ID: 11423 LIMS#: 2101173

Parameter Suite	Parameter Methods	Preservation	Lot#	Expiration	pH Check
Preserved Nutrients	[x] W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP	[x] Ice [x] H_2SO_4	SA8344070	12/10/19	[ ] <2
Metals	[x] W-ICPMS [x] W-ICP	[x] Ice [ ] HNO_3	NA9099030	4/09/20	[ ] <2
Filtered Nutrients	[x] W-PO4-F [x] Field Filtered 0.45 µm Filter	[x] Ice	15159049		
Chlorophyll	[x] CHLSUITE-W	[x] Ice			
Physical/Aggregate (Fresh)	[x] Alkalinity / W-F / W-TSS / TURBIDITY / W-Cl-IC / W-COLOR / W-SO4-IC / W-TDS	[x] Ice			
Physical/Aggregate (Marine)	[ ] Alkalinity / W-BR-IC / W-F / W-TSS / TURBIDITY	[ ] Ice			
Macroinvertebrates	[x] MI-FW-QLDC	[x] Formalin			
Periphyton	[x] ALGAE-ID	[x] Ice			
Microbiology	[x] E.Coli [ ] F Coli [ ] Enterococci	[x] Ice			
Molecular	[ ] PCR-FILTER [x] PCR-BacR [ ] PCR-GULL2 [x] PCR-HF183 [x] PCR-DG3 [ ] PCR-GFD	[x] Ice			
Tracers	[x] W-E8321-DI [x] W-E8321-MS	[x] Ice			
Pesticides	[x] W-PSNP-TQ [ ] W-CT-CL-R [ ] W-E8321-DI [ ] W-PCL-SQ-R [ ] WE8321-MS [ ] W-CARB-AA	[x] Ice			
Phytoplankton	[ ] DTY-QN-C [ ] PKD-QN-C				

Place Preservative Sticker(s) Here (If Available)

Notes: RQ-2018-07-08-34
SBIO ID 79927

Field/WIN ID
Location:
Boiling Creek at Boat Launch
G4NW0385

Signature: Frank Buten Date: 07/09/20

LIMS EVENT ID: WIN Import ID:

Enter Field Parameters, Verify Station ID In LIMS DMT: (Initials/Date) QC Station ID, Field Parameters In LIMS DMT: (Initials/Date)

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

DEP Form FD 9000-3 Physical/Chemical Characterization Field Sheet

SAMPLE ID (8) ~~7992~~ ~~7927~~ ORG ID 21FLPNS LATITUDE 30.57895

COUNTY Santa Rosa WIN ID/STORET # G4NW0385 LONGITUDE -86.90017

DATE 07/09/2019 TIME 9:50 CTZ SAMPLING AGENCY FL DEP - NWROC

SITE NAME Boiling Creek at Boat Launch RQ-2019-07-08-34

FIELD ID/NAME G4NW0385 RECEIVING BODY OF WATER. Yellow River WBID 517 Project Reference Streams

RIPARIAN ZONE / STREAM FEATURES SBIO ID 79927 LIMS ID: 210173

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category) :

Forest/Natural	Silviculture	Field/Pasture	Agricultural	Residential	Commercial	Industry	Other (Specify)
✓	✓						KAFB

Landscape Development Intensity Index (LDI):

Local Watershed Erosion (select one) : ☐ None ☒ Slight ☐ Moderate ☐ Heavy

Local Watershed NPS Pollution : ☐ No evidence ☒ Slight ☐ Moderate ☐ Heavy

Width of Riparian Vegetation (m) on Each Buffer Side: Left Bank : 718 Right Bank : 718

Hydrologic Modification Score (per FT 3101): 1-2

High Water Mark: 1.0 (m) + 72.0 (above present water level) = 73.0 (present depth) (above bed)

Artificially Impounded: ☐ Yes ☒ No

Typical Width (m) Depth (m)/Velocity (m/sec) Transect

90 m | 15 m wide

0.9 m/s	0.5 m/s	0.5 m/s
0.7 m deep	1.0 m deep	0.6 m deep

Artificially Channelized : ☒ No ☐ Some recovery ☐ Mostly recovered, more sinuous ☐ Recent, severe

Canopy Cover % ☒ Open ☐ Lightly Shaded (11-45%) ☐ Heavily Shaded ☐ Moderate Shaded (46-80%)

SEDIMENT / SUBSTRATE

Sediment Oils: ☒ Absent ☐ Slight ☐ Moderate ☐ Profuse

Sediment Odors: ☒ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ Other (Specify) :

Smothering of Substrates

	None	Slight	Moderate	Severe
Sand Smothering:	☐	☐	☒	☐
Silt Smothering:	☐	☐	☐	☒
Algae Smothering:	☐	☐	☐	☒

SUBSTRATE TYPE

Assessment Tool: ☒ SCI ☒ RPS ☒ LVS ☐ LCI ☐ BioRecon

	% Coverage	INVERT # Times Sampled	PERI # Times Sampled
Woody Debris (Snags)	0.9	~~13.0~~	~~7~~
Undercut Banks / Roots	0.1	~~17~~	~~53~~
Leaf Packs or Mat			
Aquatic Vegetation	16.5	235	7
Rock or Shell Rubble..			
Sand.....	82.4	~~170~~	3
Mud / Muck / Silt			
Other			
Other			

WATER QUALITY

	Depth (M)	Temp. (°C)	pH (SU)	D.O. (MG/L)	D.O. Sat (%)	Cond. (UMHO/CM)	Salinity (PPT)	SECCHI (M)
Top :	0.3	24.9	5.07	7.51	90.6	15.3	0.01	~~1.3~~
Mid:								☐ VOB
Bottom	0.8	24.9	5.09	7.50	90.6	15.3	0.01	TOTAL DEPTH

Meter ID: 155077 ~~43~~ — TOTAL DEPTH: 1.3

Water Odors Normal ☒ Petroleum ☐ Sewage ☐ Chemical ☐ Other ☐

Water Surface Oils Normal ☒ Sheen ☐ Globs ☐ Slick ☐ Other ☐

Water Sample Taken? ☒ Yes ☐ No

Sample Preserved? ☒ Yes ☐ No

Lot Number:_____ Exp:_____

Color Tannic ☐ Green (Algae) ☐ Clear ☐ Other (Specify) ☐

Algae Sample Taken? ☒ Yes ☐ No

Sample Preserved? ☐ Yes ☒ No

Lot Number:_____ Exp:_____

Clarity Clear ☐ Slightly Turbid ☒ Turbid ☐ Opaque ☐

ABUNDANCE

	Not Obs.	Rare	Common	Abundant
Periphyton:	☐	☐	☐	☒
Fish:	☐	☐	☐	☒
Aquatic Plants:	☐	☐	☐	☒
Iron/Sulfur Bacteria:	☒	☐	☐	☐

System Type: Stream ☒ Lake ☐ Wetland ☐ Estuary ☐ Other(Specify) ☐

AMBIENT FIELD CONDITIONS / NOTES:

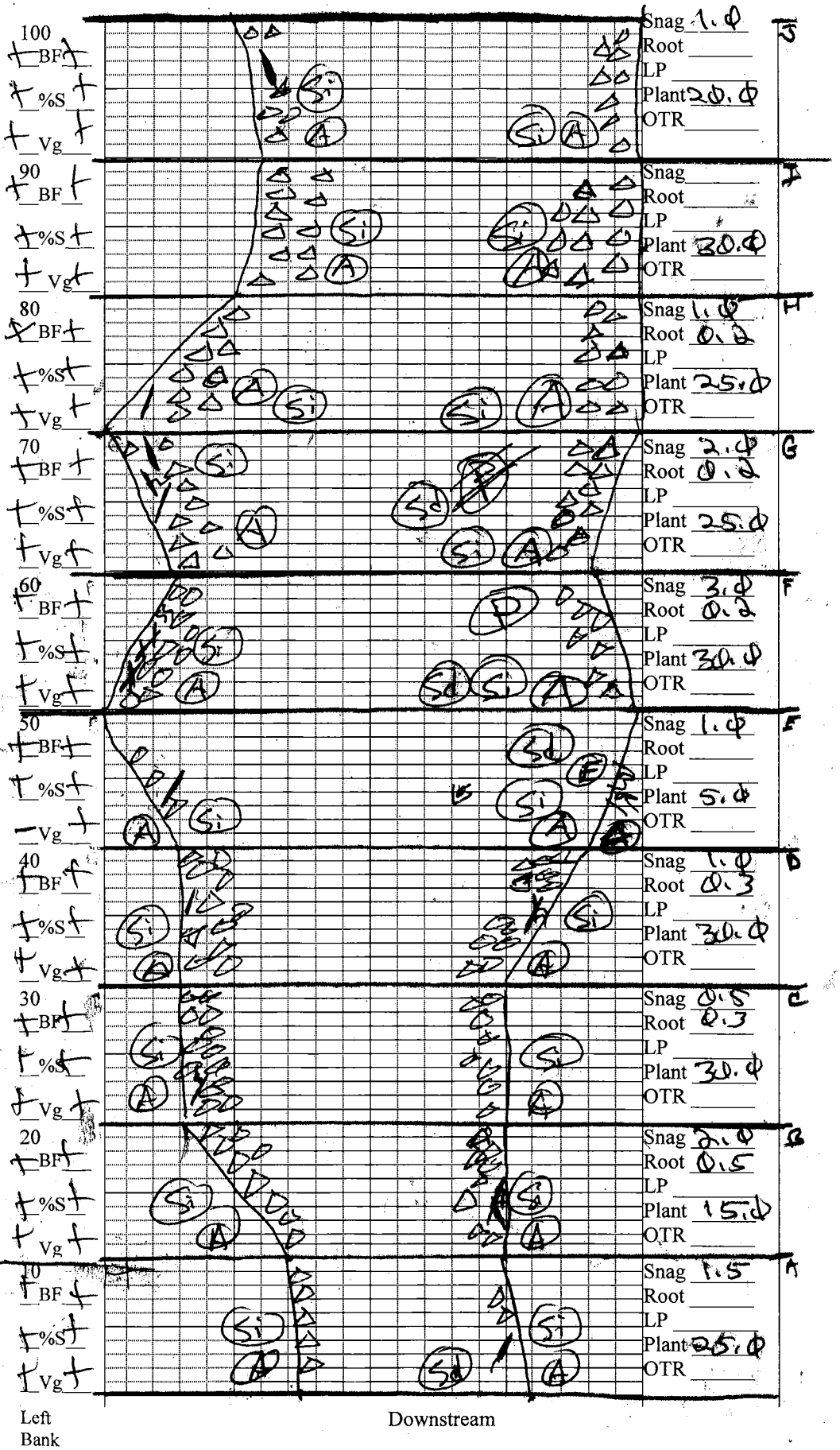
U.S. Army Special Forces Training stirred up water & caused severe turbidity during sampling (Boat Used).

☒ The antecedent hydrologic conditions have been met to my best knowledge.

SAMPLING TEAM: Frank Butera, Matt Bearden

SIGNATURE : [signature] DATE : 07/09/2019

Stream/River Habitat Sketch Sheet, Form FD 9000-4 (June 1, 2001)_
Length of grid represents 100 m of stream (not linear meters).
(Horizontal scale is double vertical scale, draw proportionately).



WIN ID G4NW0385

Substrates: Code key, draw proportionate habitat abundance.

- Snags
- Roots/undercut banks
- Leaf Packs (or mats)
- Macrophytes
- P=Pool, Si=Silt, A=Algae, Sd=Sand
- Sand Bar

Velocity:
Note where velocity measures were taken. 90 m

Habitat Smothering:
Note areas (on map) where sand or silt is something substrates, limiting habitability.

Bank Stability:
Note areas (on map) with unstable, eroding banks.

Riparian Buffer Width:
Note areas (on map) where natural vegetation is altered or eliminated.

Average width 19.2 m
Average depth 1.2 m
WQ & chemistry taken @ 0 m

Boiling Creek @ Boat Launch
Project. TMDL Studies
Sampled By/Date: 7/9/2019
FB, MBearden

0 m Latt. 30.57902

0 m Long. -86.90013

100 m Latt 30.57992

100 m Long 86.89909

0-10 meter [A]	Habitat Area (M)	Left Bank	Right Bank
8.5	Snag 1.5	Bankfull	Bankfull
0m width (m) 0.2	Root ~~2.0~~	+	+
10m width 8.5	Leaf	Slope	Slope
Max Depth 1.0	Veg 25	+	+
Avg. Depth 72.0	Gravel	Veg	Veg
Rip. Buff L 718	Rock	+	+
Rip. Buff R 718	Other (A) (Si) (Sd)		

10-20 meter [B]	Habitat Area (M)	Left Bank	Right Bank
	Snag 2.0	Bankfull	Bankfull
20m width 12	Root 0.5	+	+
	Leaf	Slope	Slope
Max Depth 1.0	Veg 15	+	+
Avg. Depth 72.0	Gravel	Veg	Veg
Rip. Buff L 718	Rock	+	+
Rip. Buff R 718	Other (A) (Si)		

20-30 meter [C]	Habitat Area (M)	Left Bank	Right Bank
	Snag 0.5	Bankfull	Bankfull
30m width 12	Root 0.3	+	+
	Leaf	Slope	Slope
Max Depth 72.0	Veg 30	+	+
Avg. Depth 1.0	Gravel	Veg	Veg
Rip. Buff L 718	Rock	+	+
Rip. Buff R 718	Other (A) (Si)		

30-40 meter [D]	Habitat Area (M)	Left Bank	Right Bank
	Snag 1.0	Bankfull	Bankfull
40m width 15	Root 0.3	+	+
	Leaf	Slope	Slope
Max Depth 72.0	Veg 35	+	+
Avg. Depth 1.5	Gravel	Veg	Veg
Rip. Buff L 718	Rock	+	+
Rip. Buff R 718	Other (A) (Si)		

40 - 50 meter [E]	Habitat Area (M)	Left Bank	Right Bank
	Snag 1.0	Bankfull	Bankfull
50m width 20	Root	+	+
	Leaf	Slope	Slope
Max Depth 72.0	Veg 50	+	+
Avg. Depth 1.5	Gravel	Veg	Veg
Rip. Buff L 718	Rock	++	~~+~~
Rip. Buff R ~~718~~ 0 (F,A)	Other (Sd) (Si) (E) (A) Boat Launch		

50-60 meter [F]	Habitat Area (M)	Left Bank	Right Bank
	Snag 3.0	Bankfull	Bankfull
60m width 15	Root 0.2	+	+
	Leaf	Slope	Slope
Max Depth 72.0	Veg 30	+	+
Avg. Depth 1.5	Gravel	Veg	Veg
Rip. Buff L 718	Rock	+	+
Rip. Buff R 718	Other (Si) (Sd)	(A) (P)	

60-70 meter [G]	Habitat Area (M)	Left Bank	Right Bank
	Snag 2.0	Bankfull	Bankfull
70m width 20	Root 0.2	+	+
	Leaf	Slope	Slope
Max Depth 72.0	Veg 25.0	+	+
Avg. Depth 1.5	Gravel	Veg	Veg
Rip. Buff L 718	Rock	+	+
Rip. Buff R 718	Other (Si) (Sd) (A)		

70-80 meter [H]	Habitat Area (M)	Left Bank	Right Bank
	Snag 1.0	Bankfull	Bankfull
80m width 15	Root	+	+
	Leaf	Slope	Slope
Max Depth 72.0	Veg 20	+	+
Avg. Depth 1.0	Gravel	Veg	Veg
Rip. Buff L 718	Rock	+	+
Rip. Buff R 718	Other (A) (Si)		

80-90 meter [I]	Habitat Area (M)	Left Bank	Right Bank
	Snag	Bankfull	Bankfull
90m width 15	Root	+	+
	Leaf ~~30~~	Slope	Slope
Max Depth 1.0	Veg 30	+	+
Avg. Depth 0.8	Gravel	Veg	Veg
Rip. Buff L 718	Rock	+	+
Rip. Buff R 718	Other (A) (Si)		

90 - 100 meter [J]	Habitat Area (M)	Left Bank	Right Bank
	Snag 1.0	Bankfull	Bankfull
100m width 15	Root	+	+
	Leaf	Slope	Slope
Max Depth 1.5	Veg 20	+	+
Avg. Depth 1.0	Gravel	Veg	Veg
Rip. Buff L 718	Rock	+	+
Rip. Buff R 718	Other (Si) (A)		

Station Name
Boiling Ck. at Boat Launch
Storet: G4NW0385
Date 7/09/2019

GPS Coordinates
0 meter
30.57902
86.90013
100 meter
30.57922
86.89909

Water Quality Measured at
0 m
Stream Velocity and location.
0.5 m/s 90 meter mark

Number of Pools & Location
1 @ 50m

Silt smothering @
A - J

Sand Smothering @
A, E, F, G

Algae Smothering @
A - J

Degraded Banks @
~~A~~ E

Total Habitat	Sq. Meters	Percent
Snags	13	0.9
Roots	1.7	0.1
Leaf		
Veg	235	16.5
Rock		
Gravel		
Sand	~~105~~	~~99~~
Sand Other	1174	82.4
Other		
Sum 1° Habitat		17.6

SBIO ID ~~79927~~ 79927

Notes:
- Bank Stability: Right = 2.9 → 2.9 = optimal
  Left = 3.0 → 3.0 = optimal

DEP Form FD 9000-5 Stream/River Habitat Assessment Field Sheet

SAMPLING AGENCY: 21FLPNS		STORET STATION NUMBER: G4NW0385	DATE (MM/DD/YY): 07/09/2019	RECEIVING BODY OF WATER: Yellow River
REMARKS: WBID 517	COUNTY: Santa Rosa	LOCATION: Boiling Creek at Boat Launch		FIELD ID/NAME: G4NW0385

Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components **Substrate Diversity** 7	Four or more major productive habitats present [snags, tree roots, aquatic vegetation, leaf packs (partially decayed), rock] 20 19 18 17 16	Three major productive habitats present. Adequate habitat. Some substrates may be new fall (fresh leaves or snags) 15 14 13 12 11	Two major productive habitats present. Less than desirable habitat, frequently disturbed or removed 10 9 8 (7) 6	One or less major productive habitat. Lack of habitat is obvious, substrates unstable or smothered 5 4 3 2 1
Substrate Availability 11	Greater than 30% major productive habitat present at site 20 19 18 17 16	16% to 30% major productive habitat, by aerial extent 15 14 13 12 (11)	6% to 15% major productive habitat 10 9 8 7 6	Less than 5% major productive habitat 5 4 3 2 1
Water Velocity 20	Max. observed at typical transect: > 0.25 m/sec. But < 1 m/sec ≥0.33 0.31 0.29 0.27 >0.25 (20) 19 18 17 16	Max. observed at typical transect: >0.1 to 0.25 m/sec 0.25 0.21 0.17 0.13 >0.1 15 14 13 12 11	Max. observed at typical transect: 0.05 to 0.1 m/sec 0.1 0.09 0.07 0.06 0.05 10 9 8 7 6	Max. observed at typical transect: <0.05 m/sec; or spate occurring: > 1 m/sec <0.05 0.04 0.03 0.01 <0.01 5 4 3 2 1
Habitat Smothering 12 Primary Score ~~12~~ 50 (50)	Adequate number of stable pools (1-2 per 12 times width) and <25% of habitats affected by sand, silt, or algae. 20 19 18 17 16	Adequate number of stable pools (1-2 per 12 times width) and >25% of habitats affected by sand, silt, or algae. 15 14 13 (12) 11	Does not have required number of stable pools (1-2 per 12 x width) and/or has shallow pools (<2 x prevailing depth). 10 9 8 7 6	Stable pools are absent. Most habitats affected by sand, silt, or algae accumulation. 5 4 3 2 1
Secondary Habitat Components **Artificial Channelization** 19	Expected sinuosity given the stream width. No evidence of dredging or artificial straightening. No spoil banks. (20) (19) 18 17 16	Good sinuosity within old channelized area. Evidence of dredging in the past (>25 yrs) but mostly recovered. 15 14 13 12 11	Straightened with trapezoidal cross section, but has a small degree of sinuosity developed within channelized area. 10 9 8 7 6	Straightened or engineered by dredging, has trapezoidal or box cut cross section, lacks required pools. May have spoil banks. 5 4 3 2 1
Bank Stability Right Bank 10 Left Bank 10	Bankfull > 60% of bank height. Slope of bank ≤ 60° from bankful to top of bank. Bankfull is within or above the root zone with few raw, eroded areas. (10) 9	Only meets 2 of the 3 requirements for optimal bank stability. 8 7 6	Only meets 1 of the 3 requirements for optimal bank stability. 5 4	Bankfull < 60% of bank height. Slope of bank > 60°. Bankfull is below the root zone with raw, eroded areas. 3 2 1
Riparian Buffer Zone Width 9 10 Right Bank ~~10~~ 10 Left Bank 9 ~~10~~	Width of vegetation greater than 18 m 10 9	Width of vegetation >12 to 18m 8 7 6	Width of vegetation 6 to 12 m. human activities close to system 5 4	Less than 6 m of buffer zone due to intensive human activities 3 2 1
Riparian Zone Vegetation Quality Right Bank 10 Left Bank 10 Secondary Score 78	Over 80% of riparian surfaces consist of normal, expected plant community for given sunlight & habitat conditions (e.g., native plants; tree, shrub, and forbs represented, if appropriate). Minimal disturbance. ~~10~~ 9	>50% to 80% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). Some disruption in community observed. 8 7 6	25% to 50% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). Disruption obvious. 5 4	Less than 25% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). 3 2 1

128 **TOTAL SCORE**

Date: 07/09/19	Analyst: F. Butera	Signature:

79927

SBIO ID: ~~79227~~ HA ID: 16143

62-160.800, F.A.C.

Revision Date: March 1, 2014

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: Boiling Creek at Boat Launch | County: Santa Rosa | Date: 7/9/2019 | Investigators: F. Butera

STORET Station Number: G4NW0385

Transect (m)	Point 1=right 9=left	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover
0	1	6	R	
	2	6	R	
	3	2 6 X	R	
	4	X	R	
	5	X	R	0
	6	X	R	
	7	2 X	R	
	8	X 2	R	
	9	6	R	
10	1	6 6	R	
	2	6	R	
	3	2 X	R	
	4	2 X	R	
	5	N 2 X	R	0
	6	N 2 X	R	
	7	N 2 X	R	
	8	3	R	
	9	3 6	R	
20	1	6 6	R	
	2	6	R	
	3	6	R	
	4	2 X	R	
	5	N 2	R	0
	6	2	R	
	7	2	R	
	8	3	R	
	9	3	R	
30	1	2	R	
	2	2	R	
	3	2	R	
	4	2	R	
	5	2	R	0
	6	2	R	
	7	2	R	
	8	2	R	
	9	2	R	
40	1	2	R	
	2	2	R	
	3	2	R	
	4	2	R	
	5	2	R	0
	6	2	R	
	7	2	R	
	8	2	R	
	9	2	R	
50	1	2	R	
	2	2	R	
	3	2	R	
	4	2	R	
	5	2	R	0
	6	2	R	
	7	2	R	
	8	3	R	
	9	3	R	

Transect (m)	Point 1=right 9=left	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover
60	1	6	R	
	2	6	R	
	3	2	R	
	4	2	R	
	5	2	R	0
	6	2	R	
	7	2	R	
	8	2	R	
	9	2	R	
70	1	3	R	
	2	3	R	
	3	3	R	
	4			
	5			0
	6			
	7			
	8			
	9	3	R	
80	1	3	R	
	2	3	R	
	3			
	4			
	5			0
	6			
	7			
	8	2	R	
	9	2	R	
90	1	6	R	
	2	6	R	
	3	6	R	
	4	2	R	
	5	2	R	0
	6	2	R	
	7	2	R	
	8	2	R	
	9	2	R	
100	1	3	R	
	2	3	R	
	3	2	R	
	4	2	R	
	5	2	R	0
	6			
	7			
	8			
	9	N	R	

Secchi depth	72.0
Estimated?	Y

# points ranked 4-6	
total points assessed	
% points ranked 4-6	

Check accompanying data collected at same site/date.

Algal mat sample	✓
Linear Veg Survey	✓
Habitat Assessment	✓
SCI/Biorecon	✓
Water sample	✓

~~RQ-2019-02-11-27~~

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

SBIO Visit ID: 79927 ~~79227~~

RPS ID: 9398

RQ-2019-07-08-34

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 9000-32: LINEAR VEGETATION SURVEY FIELD SHEET

Waterbody: Boiling Creek at Boat Launch	Date: 07/9/19	County: Santa Rosa	Storet Number: G4NW0385
Analyst: F. Butera		Signature:	

Comments:

Instructions: Note taxa growing in the water with a checkmark if present, "D" if dominant, and "C" if codominant (dominance only if 1 m^2 of taxa present). Note in the boxes below if no dominant are selected, and note total macrophyte abundance rank for each section. Only the most common taxa are listed, so use blank spaces for additional taxa names.

HERBACEOUS SPECIES	Meter Mark 0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	Specimen collected (check)
Alternanthera philoxeroides											
Bacopa caroliniana		1	1			1					
Bacopa monneri											
Bidens mitis											
Boehmeria cylindrica											
Centella asiatica											
Ceratophyllum demersum											
Chara											
Cicuta maculata											
Cladium jamaicense											
Colocasia esculenta											
Commelina diffusa											
Commelina virginica											
Crinum americanum											
Diodia virginiana											
Eichhornia crassipes											
Eleocharis (wispy viviparous)			1	1	1	1		C	C	1	
Hydrilla verticillata											
Hydrocotle							1			1	
Hygrophila polysperma											
Hymenocallis											
Lachnanthes caroliniana											
Landoltia punctata											
Lemna											
Limnophila sessiflora											
Ludwigia leptocarpa											
Ludwigia palustris											
Ludwigia peruviana											
Ludwigia repens											
Luziola fluitans											
Hypericum fas	1			1						1	
Ilex		1									
Cliftonia						1					
Cyrilla						1	1				
If no Dominant or Co-Dominant were selected, indicate with "X"											
Indicate % cover macrophytes per section											
0-5% Macrophyte Coverage											
>5 and ≤10% Macrophyte Coverage											
>10 and ≤25% Macrophyte Coverage	X	X	X	X	X	X	X	X	X	X	
>25 and ≤50% Macrophyte Coverage											
> 50% Macrophyte Coverage											

HERBACEOUS SPECIES	Meter Mark 0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	Specimen collected (check)
Micranthemum glomeratum											
Micranthemum umbrosum											
Myriophyllum aquaticum											
Najas guadelupensis											
Nuphar luteum	1	1	C	C	C	1	1	1	C	C	
Orontium aquaticum											
Panicum hemitomon	D	D	1	1	1	1	D	C	1	1	
Panicum repens											
Panicum rigidulum											
Pistia stratioides											
Polygonum glabra											
Polygonum hydropiperoides											
Polygonum punctatum											
Pontedaria cordata	1	1	1	1		1	1	1			
Potamogeton illinoensis											
Ruellia simplex											
Sacciolepis striata											
Sagittaria kurziana											
Sagittaria lancifolia											
Sagittaria latifolia											
Salvinia minima											
Samolus parviflora											
Saururus cernuus											
Sparganium americanum											
Typha	1		1			1					
Vallisneria americana											
Zizania aquatica											
Nymphae	1	1	1	1	1	1	1				
Nymphoides	1	1	C	C	C	D		1	1	D	
Pontederia			1								
Acer rubrum								1			
Taxodium											

Field ID G4NW0385	RPS ID 9398	SBIO ID ~~79227~~ 79927	VPDB ID 11423
LIMS ID ~~62-160.000, F.A.C.~~	Lims ID 21ϕ173		

Revision Date: March 1, 2014

Request Number: RQ-2019-07-08-34
REFERENCE STREAMS NW

Florida Department of Environmental Protection
Central Laboratory Submittal Form

Page 1 of 3
last revised Jan 25, 2018

Customer: NW-DIST
Project ID: SCIREF

Requester: Michael King
Collected By: F. Butera M. Bearden
Field Report Prepared By: F. Butera
Sampling Agency: FLDEP-NWROC

Location
Field ID
WIN/STOR
Latitude ☐ dd ☐ dms
Longitude ☐ dd ☐ dms

Field/WIN ID
G4NW0385

Location:
Boiling Creek at Boat Launch

☐ Comp ☒ Grab
Collection (comp begin or grab) Date 7/04/2019 Time 9:54 Eastern [✓ Central]
Composite end Date Time
Bottle Group(s) (See pg 2) A B
Matrix (type, e.g., Salt, Fresh, etc) Fresh, Surface
Diss. Oxygen 7.51 ☒ mg/L ☐ % sat
Total Res. Chlorine (mg/L)
Temp (C) 24.9
pH 5.07
Sample Depth 0.3 ☐ ft ☒ m
Sp. Conductance (umho/cm) 15.3 ~~15.3~~ [illegible]
Salinity (ppt) 0.01
Comments

Location
Field ID
WIN/STORET #
Latitude ☐ dd ☐ dms
Longitude ☐ dd ☐ dms
☐ Comp ☐ Grab
Collection (comp begin or grab) Date Time Eastern Central
Composite end Date Time
Bottle Group(s)
Matrix (type, e.g., Salt, Fresh, etc)
Diss. Oxygen ☐ mg/L ☐ % sat
Total Res. Chlorine (mg/L)
Temp (C)
pH
Sample Depth ☐ ft ☐ m
Sp. Conductance (umho/cm)
Salinity (ppt)
Comments

Location
Field ID
WIN/STORET #
Latitude ☐ dd ☐ dms
Longitude ☐ dd ☐ dms
☐ Comp ☐ Grab
Collection (comp begin or grab) Date Time Eastern Central
Composite end Date Time
Bottle Group(s)
Matrix (type, e.g., Salt, Fresh, etc)
Diss. Oxygen ☐ mg/L ☐ % sat
Total Res. Chlorine (mg/L)
Temp (C)
pH
Sample Depth ☐ ft ☐ m
Sp. Conductance (umho/cm)
Salinity (ppt)
Comments

Location
Field ID
WIN/STORET #
Latitude ☐ dd ☐ dms
Longitude ☐ dd ☐ dms
☐ Comp ☐ Grab
Collection (comp begin or grab) Date Time Eastern Central
Composite end Date Time
Bottle Group(s)
Matrix (type, e.g., Salt, Fresh, etc)
Diss. Oxygen ☐ mg/L ☐ % sat
Total Res. Chlorine (mg/L)
Temp (C)
pH
Sample Depth ☐ ft ☐ m
Sp. Conductance (umho/cm)
Salinity (ppt)
Comments

Relinquished By:	Date/Time	Shipping Method	Number of Coolers Shipped:	Received By:	Date/Time
F Butera	07/09/2019	Fed Ex			

Group: A	Bottle Type:	P-1L	# of Bottles: 1	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: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab 1
	CHLSUITE-W					
Group: A	Bottle Type:	TEST HAS NO BOTTLE	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab *1
	NW-UWF-ECQ				# UWF Contract Lab	
Group: A	Bottle Type:	QPCR-P-500ML	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab 1
	PCR-BACR PCR-GFD PCR-GULL2 PCR-HF183					
Group: A	Bottle Type:	BG-500ML	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab 1
	W-E8321-DI W-E8321-MS					
Group: A	Bottle Type:	P-500ML	# of Bottles: 1	Preservative:	HNO3	Enter Number of Bottles Sent to Lab 1
	W-ICP W-ICPMS				HNO3 LOT# NA9099030 EXP: 04/09/20	
Group: A	Bottle Type:	P-500ML	# of Bottles: 1	Preservative:	ICE And H2SO4	Enter Number of Bottles Sent to Lab 1
	W-NH3 W-NO2NO3 W-S-A-TP W-TKN W-TOC				H2SO4 LOT# SA8344070 EXP: 12/10/2019	
Group: A	Bottle Type:	P-125ML	# of Bottles: 1	Preservative:	FILTER-ICE	Enter Number of Bottles Sent to Lab 1
	W-PO4-F					
Group: A	Bottle Type:	BG-1L	# of Bottles: 4	Preservative:	ICE	Enter Number of Bottles Sent to Lab 4

Group: A	Bottle Type: W-PSNP-TQ	BG-1L	# of Bottles: 4	Preservative:	ICE	**Enter Number of Bottles Sent to Lab**	1
Group: B	Bottle Type: ALGAL_ID	PT-50ML	# of Bottles: 1	Preservative:	ICE	**Enter Number of Bottles Sent to Lab**	1
Group: B	Bottle Type: MI-FW-QLDC	PJ-2L	# of Bottles: 2	Preservative:	Formalin	**Enter Number of Bottles Sent to Lab**	2

SAMPLE TRANSMITTAL FORM
Document Reference # 05.1.0

Project: FDEP

Laboratory: Wetlands Research Laboratory

Sampler's intials : FB

Method of transport: Drop off on ice by automobile

Page _1_ of _1_

Samples delivered by: [signature] of FDEP

Date/Time: 07/09/19 / 1900

Sample received by: [signature] of WRL

Date/Time: 07/09/19 / 1900

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.

Lab ID	Sample ID	Matrix[1]	Type[2]	Container Type	Analyses Requested	Preservative	Sample (°C)[3]	Sampling Date/Time
19-45342	G4NW0385. Boiling Creek at Boat Launch. Fresh Water.	SW	G	Sterile plastic	Escherichia Coli	ice/Na2S2O3	5.8	7/9/2019 // 9:50

Field/WIN ID

G4NW0385

Location:
Boiling Creek at Boat Launch

Comments sample container lot# #L18145 Exp. 06/30/2021

RQ-2019-07-08-34

Contact organization FDEP NWROC

Contact name Mike King

Phone: (850) 595-8300

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

Sampler's name: Frank Butera

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

[2]Type codes: G = grab, C = composite, X =

[3] Recorded using IRT-2