

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:

Desi

RQ:

2019-10-28-18

Project:

LSJA Palatka

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

10/2019

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.	J. Parnish	10/30/19	726	23.7	762.7	8.4	8.4	100.4	-	1.045	Ⓟ/F	Ⓟ/F
ICV	L	↓	727	23.8	762.8	8.4	8.49	100.5	-	1.045	Ⓟ/F	Ⓟ/F
CCV	K. Appleby	↓	1414	24.6	761.3	8.3	8.40	100.8	-	1.045	Ⓟ/F	Ⓟ/F
CCV			1501								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.	J. Parnish	10/30/19	728	19071B	7/20	1000	1000	Ⓟ/F	Ⓟ/F
ICV	L	↓	729	19071A	7/20	100	102	Ⓟ/F	Ⓟ/F
CCV	K. Appleby	↓	1504	191025B	11/20	20.000	19.847	Ⓟ/F	Ⓟ/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.	K. Appleby	10/30/19	730	290278	1/21	7.00	24.6	7.00	-31.7	Ⓟ/F	Ⓟ/F
Calibr.	↓	↓	731	2904600	3/21	4.00	24.3	4.00	150.2	Ⓟ/F	Ⓟ/F
Calibr.	↓	↓	732	2810F55	4/20	10.00	24.6	10.00	20.7	Ⓟ/F	Ⓟ/F
ICV	↓	↓	733	2904600	3/21	4.00	24.6	3.97	150.9	Ⓟ/F	Ⓟ/F
CCV	↓	↓	1506	2810F55	4/20	10.00	24.9	9.98	202.7	Ⓟ/F	Ⓟ/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: 10/2019

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	K. Appleby	10/30/19	740	0.00	0.00	Ⓟ/F	Ⓟ/F

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

COMMENTS:



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2019

Data Qualified?
Yes / No

WIN Station Name: Bull Creek Canal 1.0M Upstr of Dead Lake Date: 10/30/19
(mm/dd/yyyy)

WIN/ Field ID: G2NE1194 WBID: 2615 Latitude: 29.43226
(Decimal Degrees)

County: Putnam ORG ID: 21 FLA Longitude: -81.43517
(Decimal Degrees)

Receiving Body of Water: SJR RQ: 2019-10-28-18

Sampling Team Members					WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
J. Parrish									
K. Appley									

Sampling Equipment		
☒ Sample Container	☐ Van Dorn	☐ Pole
☐ Carboy	☐ Syringe	
☐ Dipper	☐ Other	
Depth Measured with <u>Ortho #44</u>		
Equipment ID <u>Well #1</u>		

Collection Method		
☐ Wading	☐ Canoe/Kayak	
☐ From Shore	☐ Electric Motor	
☐ Other	☒ Gasoline Motor	

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

Photos: Yes / No Flow: No Flow / Intestinal / Flowing / NA Tide: Rising/ Falling/ Slack/ NA Tide Times: High Low

Time Zone	Time	Total Depth (m)	Sample Depth (m)	Secchi Disk (m)	DO (mg/L)	DO (%SAT)	pH	Salinity (PPT)	Sp COND (umhos/cm)	Temp. (C°)
<u>EST</u>	<u>1015</u>	<u>1.3</u>	<u>0.3</u>	<u>NA</u>	<u>2.89</u>	<u>36.9</u>	<u>6.77</u>	<u>0.33</u>	<u>688</u>	<u>27.1</u>
CEN										

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

SBIO ID Numbers: SBIO-ID: HA-ID: RPS-ID: Macrophyte-ID: LIMS#:

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>SA9203100</u>	<u>7/2020</u>	☒ <2
Metals	☒ W-ICPMS ☒ W-ICP	☒ Ice ☒ HNO3	<u>NA9189080</u>	<u>7/2020</u>	☒ <2
Filtered Nutrients	☒ W-PO4-F ☒ Field Filtered 0.45 um Filter	☒ Ice	<u>R9BA86875</u>		
Chlorophyll	☒ CHL-SUIT-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 ☐ 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	☐ Ice			

Notes:

Signature: [Signature] Date: 10/30/19

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:

(Initials/Date) (Initials/Date) (Initials/Date)

WIN ID/Field ID:



G2NE1194

Bull Creek Ditch 1 mile Upstream of Dead Lake



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2019

Data Qualified?

Yes / No

WIN Station Name: _____ Date: _____
(mm/dd/yyyy)

WIN/ Field ID: _____ WBID: _____ Latitude: _____
(Decimal Degrees)

County: _____ ORG ID: _____ Longitude: _____
(Decimal Degrees)

Receiving Body of Water: _____ RQ-2018- _____

Sampling Team Members					WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check

Sampling Equipment		
☐ Sample Container	☐ Van Dorn	☐ Pole
☐ Carboy	☐ Syringe	
☐ Dipper	☐ Other _____	
Depth Measured with _____		
Equipment ID _____		

Collection Method	
☐ 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 / Intertidal / Flowing / NA Tide: Rising/ Falling/ Slack/ NA Tide Times: High Low

Time Zone	Time	Total Depth (m)	Sample Depth (m)	Secchi Disk (m)	DO (mg/L)	DO (%SAT)	pH	Salinity (PPT _h)	Sp COND (µmhos/cm)	Temp. (C°)
EST										
CEN										

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

SBIO ID Numbers: SBIO-ID: _____ HA-ID: _____ RPS-ID: _____ Macrophyte-ID: _____ LIMS#: _____

Parameter Suite	Parameter Methods	Preservation	Lot#	Expiration	pH Check
Preserved Nutrients	☐ W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP	☐ Ice ☐ H ₂ SO ₄			☐ <2
Metals	☐ W-ICPMS ☐ W-ICP	☐ Ice ☐ HNO ₃			☐ <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-CI-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	☐ Ice			

Place Preservative Sticker(s) Here
(If Available)

Notes:	Place Label Here
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Signature: _____ Date: _____

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: _____

(Initials/Date)

(Initials/Date)

(Initials/Date)



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2019

Data Qualified?

Yes / No

WIN Station Name: MILL BRANCH @ OLD SAN MATEO RD

Date: 10/30/19
(mm/dd/yyyy)

WIN/ Field ID: 20030577

WBID: 2592

Latitude: 29.64672

(Decimal Degrees)

County: Putnam

ORG ID: 21FLA

Longitude: -81.59330

(Decimal Degrees)

Receiving Body of Water: SJR

RQ-2019-01-07-44 KA 10-28-18

Sampling Team Members					WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
R. Appleby J. Parrish									

Sampling Equipment				
☒ Sample Container	☒ Van Dorn	☒ Pole		
☒ Carboy	☐ Syringe			
☐ Dipper	☐ Other			

Depth Measured with _____
Equipment ID _____

Collection Method				
☐ Wading	☐ Canoe/Kayak			
☐ From Shore	☐ Electric Motor			
☒ Other Bridge	☐ Gasoline Motor			

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

Photos: Yes / No Flow: No Flow / Intestinal / Flowing / NA Tide: Rising/ Falling/ Slack/ NA Tide Times: High Low

Time Zone	Time	Total Depth (m)	Sample Depth (m)	Secchi Disk (m)	DO (mg/L)	DO (%SAT)	pH	Salinity (PPT)	Sp COND (µmhos/cm)	Temp. (C°)
EST	<u>1305</u>	<u>0.33</u>	<u>0.3</u>	<u>10B</u>	<u>5.47</u>	<u>65.8</u>	<u>7.07</u>	<u>1.25</u>	<u>2429</u>	<u>24.8</u>
CEN				<u>S</u>						

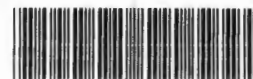
Biological Samples Collected: None HA SCI RPS Algae ID LVS LVI Other:

SBIO ID Numbers: SBIO-ID: None HA-ID: RPS-ID: Macrophyte-ID: LIMS#:

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>SA9129100</u>	<u>12/10/19</u>	<u><2</u>
Metals	☒ W-ICPMS ☐ W-ICP	☒ Ice ☐ HNO3	<u>NA8344050</u>	<u>12/10/19</u>	<u><2</u>
Filtered Nutrients	☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter	☒ Ice	<u>NA9189080</u>	<u>7/20/20</u>	<u><2</u>
Chlorophyll	☒ CHLSUITE-W	☒ Ice	<u>R9BA86875</u>	<u>12/10/19</u>	<u><2</u>
Physical/Aggregate (Fresh)	☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-Cl-IC / W-COLOR / W-SO4-IC / W-TDS	☒ Ice	Contains: 1:1 H2SO4 Lot No.: SA9129100 Expires: 05/09/20 See Safety Data Sheet (SDS)		
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	☐ Ice			

Notes:

WIN ID/Field ID:



20030577

MILL BR. @ OLD SAN MATEO RD.

Signature: [Signature]

Date: 10/30/19

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: _____

(Initials/Date)

(Initials/Date)

(Initials/Date)

(Initials/Date)

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



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2019

Data Qualified?

Yes / No

WIN Station Name: Dunns creek 0.4 miles upstream of US17

Date: 10/30/19
(mm/dd/yyyy)

WIN/ Field ID: G2NE1187

WBID: 2806A

Latitude: 29.57755

(Decimal Degrees)

County: Putnam

ORG ID: 21FLA

Longitude: -81.62629

(Decimal Degrees)

Receiving Body of Water: SJR

RQ-2019- 01-07-44

10-28-18

Sampling Team Members					WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
JParrish					X	X	X	X	X
KAppleby					X	X	X	X	X

Sampling Equipment		
☒ Sample Container	☐ Van Dorn	☒ Pole
☐ Carboy	☐ Syringe	
☐ Dipper	☐ Other	
Depth Measured with <u>0.75m #44</u>		
Equipment ID <u>Well #1</u>		
Collection Method		
☐ Wading	☐ Canoe/Kayak	
☐ From Shore	☐ Electric Motor	
☒ Other <u>Dock</u>	☐ Gasoline Motor	

Water Level: Dry/ Pooled/ Low / Normal / High / Flooded
Photos: Yes / (No) Flow: No Flow / Intestinal / Flowing / NA
Meter ID# DEST Matrix: Fresh / Marine / DI
Tide: Rising/ Falling/ Slack/ NA Tide Times: High Low

Time Zone	Time	Total Depth (m)	Sample Depth (m)	Secchi Disk (m)	DO (mg/L)	DO (%SAT)	pH	Salinity (PPT)	Sp COND (µmhos/cm)	Temp. (C°)
EST	1248	1.4	0.3	0.6	5.1	64.5	7.31	0.33	687	26.9
CEN										

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

SBIO ID Numbers: SBIO-ID: HA-ID: RPS-ID: Macrophyte-ID: LIMS#:

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	12/2019	<2
Metals	☒ W-ICPMS ☒ W-ICP	☒ Ice ☒ HNO3	NA9189080	7/2020	<2
Filtered Nutrients	☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter	☒ Ice	2918486875		
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-RW-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:

WIN ID/Field ID:



G2NE1187

Dunns Creek 0.4miles upstream of US-17

Signature: [Signature]

Date:

10/30/2019

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 (Initials/Date) Migrate Data to WIN: (Initials/Date) Verify Data In WIN: (Initials/Date)

(Initials/Date) (Initials/Date) (Initials/Date)

Scan/Save Field Sheets _____ Migrate Data to WIN: _____ Verify Data In WIN: _____

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

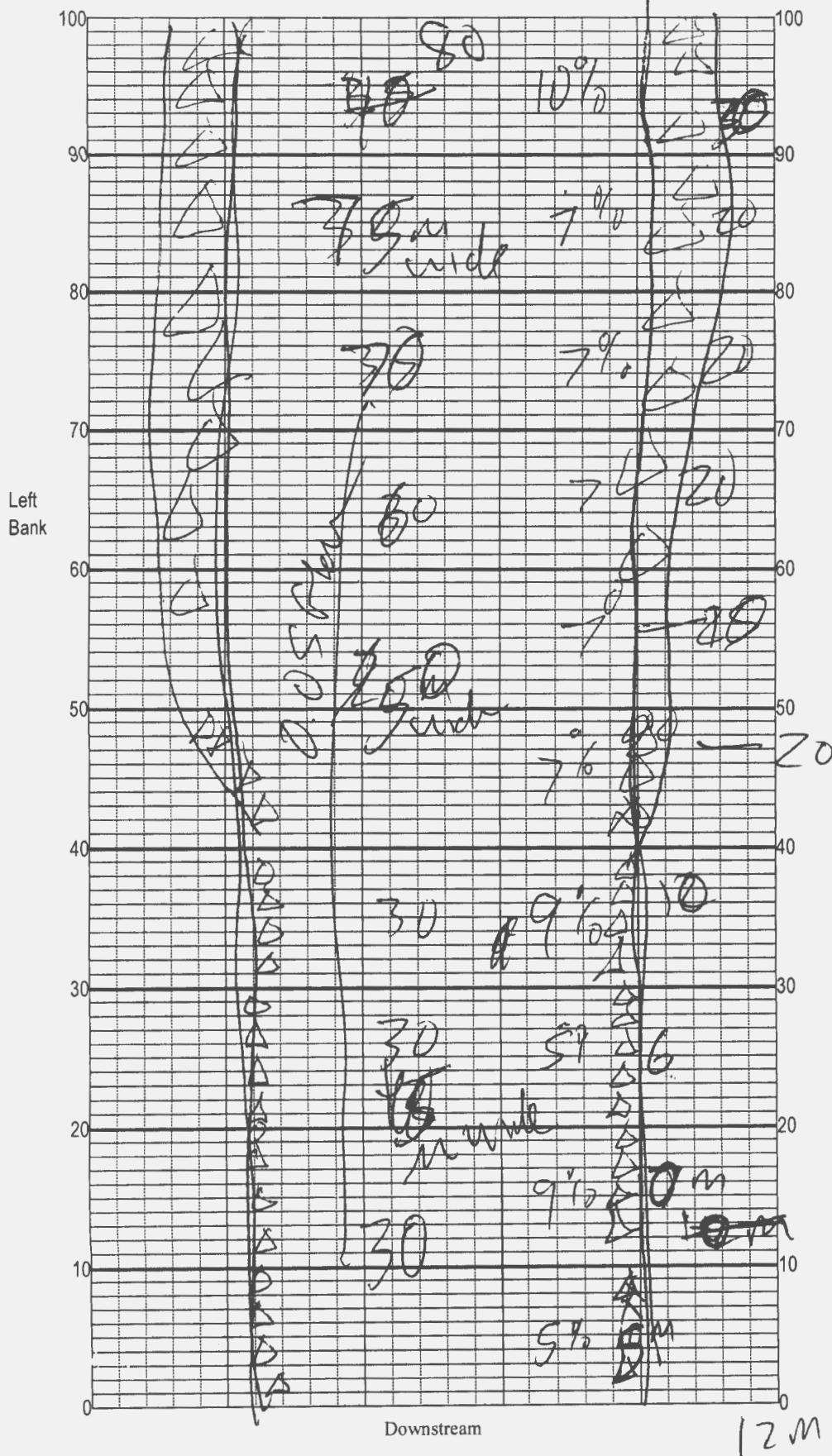
SAMPLING AGENCY:		STORET STATION NUMBER: <u>62NE1194</u>	DATE (MM/DD/YY): <u>10/30/19</u>	RECEIVING BODY OF WATER:
REMARKS:	COUNTY: <u>Putnam</u>	LOCATION: <u>Bullcreek 1.0m up the bank</u>	FIELD ID/NAME:	

Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components Substrate Diversity <u>4</u>	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 <u>4</u> 3 2 1
Substrate Availability <u>63</u>	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 <u>6</u>	Less than 5% major productive habitat 5 4 <u>3</u> 2 1
Water Velocity <u>5</u>	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 sate occurring: > 1 m/sec <0.05 0.04 0.03 0.01 <0.01 <u>5</u> 4 3 2 1
Habitat Smothering <u>5</u> Primary Score <u>2017</u>	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. <u>5</u> 4 3 2 1
Secondary Habitat Components Artificial Channelization <u>18</u>	Expected sinuosity given the stream width. No evidence of dredging or artificial straightening. No spoil banks. 20 19 <u>18</u> 17 16	Good sinuosity within old channelized area. Evidence of dredging or straightening 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 <u>26</u> Left Bank <u>26</u>	Bankfull > 60% of bank height. Slope of bank ≤ 60° from bankfull to top of bank. Bankfull is within or above the woody root zone with few raw, eroded areas. 10 <u>9</u> <u>28</u>	Only meets 2 of the 3 requirements for optimal bank stability. 8 7 <u>6</u>	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 woody root zone with raw, eroded areas. 3 2 1
Riparian Buffer Zone Width Right Bank <u>10</u> Left Bank <u>10</u>	Width of vegetation greater than 18 m <u>10</u> 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 <u>86</u> Left Bank <u>86</u> Secondary Score <u>72</u>	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. <u>8</u> 7 <u>6</u>	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

TOTAL SCORE

Date: <u>10/30/19</u>	Analyst: <u>Jeremy Cam</u>	Signature: <u>Jeremy Cam</u>
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DEP Form FD 9000-4 Stream/River Habitat Assessment Sketch Sheet



Location: Bull Creek 1 mile upstream
 Date: 10/30/19
 Sampler: SPM

100 m: Latitude _____	Longitude _____
0 m: Latitude _____	Longitude _____
Substrates: Code key, draw proportionate habitat abundance. %	
☐ Snags	_____
☐ Roots/undercut banks	_____
☐ Leaf Packs (or mats)	_____
☒ Aquatic Macrophytes	<u>6</u>
☐ _____	_____
☐ _____	_____
☐ Pools	total # observed = _____ # range expected = _____
Average width _____ m	
Average depth _____ m	
Velocity measured at _____ meter mark.	
WQ & chemistry taken at _____ meter mark.	
Habitat Smothering: Note areas (on map) where sand or silt is smothering 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.	

Plants observed / other notes:

2500 total
plants
5000 total

Length of grid represents 100 m of stream (not linear meters).
 (Horizontal scale is double vertical scale, draw proportionately).

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

SAMPLE ID _____ ORG ID _____ LATITUDE _____
 COUNTY _____ STORET # 62NE1194 LONGITUDE _____
 DATE 10/30/19 TIME 1015 SAMPLING AGENCY _____
 SITE NAME Bull Cr. In. v. stream
 FIELD ID/NAME _____ RECEIVING BODY OF WATER _____

RIPARIAN ZONE / STREAM FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category): Forest/Natural ☐ Silviculture ☐ Field/Pasture ☐ Agricultural ☐ Residential ☐ Commercial ☐ Industry ☐ Other (Specify) ☐								Landscape Development Intensity Index (LDI) <u>50</u>
Local Watershed Erosion (select one): ☒ None ☐ Slight ☐ Moderate ☐ Heavy Local Watershed NPS Pollution: ☒ No evidence ☐ Slight ☐ Moderate ☐ Heavy						Typical Width (m) Depth (m)/Velocity (m/sec) Transect <u>50</u> m wide		
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank: <u>>10</u> Right Bank: <u>>10</u>				Hydrologic Modification Score (per FT 3101) ☐		m/s <u>0.05</u> m/s ☐ m/s ☐		
High Water Mark: <u>0.3</u> + <u>1.3</u> = <u>1.8</u> (m) (above present water level) (present depth) (above bed)				Artificially Impounded ☐ Yes ☒ No		m deep <u>1.3</u> m deep ☐ m deep ☐		
Artificially ☒ No ☐ Mostly recovered, more sinuous Channelized: ☐ Some recovery ☐ 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 Sand Smothering: None ☒ Slight ☐ Moderate ☐ Severe ☐ Silt Smothering: None ☒ Slight ☐ Moderate ☐ Severe ☐ Algae Smothering: None ☒ Slight ☐ Moderate ☐ Severe ☐																																																																														
SUBSTRATE TYPE Assessment Tool: ☐ SCI ☒ RPS ☒ LVS ☐ LCI ☐ BioRecon <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>% Coverage</th> <th>INVERT # Times Sampled</th> <th>PERI # Times Sampled</th> </tr> </thead> <tbody> <tr> <td>Woody Debris (Snags)</td> <td>☐</td> <td>☐</td> <td>☐</td> </tr> <tr> <td>Undercut Banks / Roots</td> <td>☐</td> <td>☐</td> <td>☐</td> </tr> <tr> <td>Leaf Packs or Mat</td> <td>☐</td> <td>☐</td> <td>☐</td> </tr> <tr> <td>Aquatic Vegetation</td> <td><u>3</u></td> <td>☐</td> <td>☐</td> </tr> <tr> <td>Rock or Shell Rubble..</td> <td>☐</td> <td>☐</td> <td>☐</td> </tr> <tr> <td>Sand.....</td> <td>☐</td> <td>☐</td> <td>☐</td> </tr> <tr> <td>Mud / Muck / Silt</td> <td>☐</td> <td>☐</td> <td>☐</td> </tr> <tr> <td>Other</td> <td>☐</td> <td>☐</td> <td>☐</td> </tr> <tr> <td>Other</td> <td>☐</td> <td>☐</td> <td>☐</td> </tr> </tbody> </table>				% Coverage	INVERT # Times Sampled	PERI # Times Sampled	Woody Debris (Snags)	☐	☐	☐	Undercut Banks / Roots	☐	☐	☐	Leaf Packs or Mat	☐	☐	☐	Aquatic Vegetation	<u>3</u>	☐	☐	Rock or Shell Rubble..	☐	☐	☐	Sand.....	☐	☐	☐	Mud / Muck / Silt	☐	☐	☐	Other	☐	☐	☐	Other	☐	☐	☐	WATER QUALITY <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>Depth (M)</th> <th>Temp. (°C)</th> <th>pH (SU)</th> <th>D.O. (MG/L)</th> <th>D.O. Sat (%)</th> <th>Cond. (UMHO/CM)</th> <th>Salinity (PPT)</th> <th>SECCHI (M)</th> </tr> </thead> <tbody> <tr> <td>Top:</td> <td>☐</td> <td>☐</td> <td>☐</td> <td>☐</td> <td>☐</td> <td>☐</td> <td>☐</td> <td>☐</td> </tr> <tr> <td>Mid:</td> <td><u>0.3</u></td> <td><u>27.1</u></td> <td><u>6.77</u></td> <td><u>2.84</u></td> <td><u>36.9</u></td> <td><u>688</u></td> <td><u>0.33</u></td> <td>☐ VOB</td> </tr> <tr> <td>Bottom:</td> <td><u>1.3</u></td> <td>☐</td> <td>☐</td> <td>☐</td> <td>☐</td> <td>☐</td> <td>☐</td> <td>TOTAL DEPTH ☐</td> </tr> </tbody> </table> Meter ID: _____							Depth (M)	Temp. (°C)	pH (SU)	D.O. (MG/L)	D.O. Sat (%)	Cond. (UMHO/CM)	Salinity (PPT)	SECCHI (M)	Top:	☐	☐	☐	☐	☐	☐	☐	☐	Mid:	<u>0.3</u>	<u>27.1</u>	<u>6.77</u>	<u>2.84</u>	<u>36.9</u>	<u>688</u>	<u>0.33</u>	☐ VOB	Bottom:	<u>1.3</u>	☐	☐	☐	☐	☐	☐	TOTAL DEPTH ☐
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			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 <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>Not Obs.</th> <th>Rare</th> <th>Common</th> <th>Abundant</th> </tr> </thead> <tbody> <tr> <td>Periphyton:</td> <td>☒</td> <td>☐</td> <td>☐</td> <td>☐</td> </tr> <tr> <td>Fish:</td> <td>☐</td> <td>☐</td> <td>☒</td> <td>☐</td> </tr> <tr> <td>Aquatic Plants:</td> <td>☐</td> <td>☐</td> <td>☐</td> <td>☒</td> </tr> <tr> <td>Iron/Sulfur Bacteria:</td> <td>☒</td> <td>☐</td> <td>☐</td> <td>☐</td> </tr> </tbody> </table>				Not Obs.	Rare	Common	Abundant	Periphyton:	☒	☐	☐	☐	Fish:	☐	☐	☒	☐	Aquatic Plants:	☐	☐	☐	☒	Iron/Sulfur Bacteria:	☒	☐	☐	☐	System Type: Stream ☐ Lake ☐ Wetland ☐ Estuary ☐ Other (Specify) ☐																																																								
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AMBIENT FIELD CONDITIONS / NOTES: ☐ The antecedent hydrologic conditions have been met to my best knowledge.																																																																																				
SAMPLING TEAM <u>John</u>				SIGNATURE: <u>John</u>		DATE: <u>10/30/19</u>																																																																														

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site:					County:		Date:		Investigators:											
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	STORET Station Number:										
0	1	N	N		60	1	N	N		Secchi depth Estimated?										
	2	N	N			2		N												
	3	N	N			3		N												
	4	N	N			4		N												
	5	N	N			5		N												
	6	N	N			6		N												
	7	N	N			7		N												
	8	N	N			8		N												
	9	N	N			9		N												
10	1	N	N		70	1	N	N		# points ranked 4-6 total points assessed % points ranked 4-6										
	2	N	N			2		N												
	3	N	N			3		N												
	4	N	N			4		N												
	5	N	N			5		N												
	6	N	N			6		N												
	7	N	N			7		N												
	8	N	N			8		N												
	9	N	N			9		N												
20	1	N	N		80	1	N	N		Check accompanying data collected at same site/date. Algal mat sample Linear Veg Survey Habitat Assessment SCI/Biorecon Water sample RQ-										
	2	N	N			2		N												
	3	N	N			3		N												
	4	N	N			4		N												
	5	N	N			5		N												
	6	N	N			6		N												
	7	N	N			7		N												
	8	N	N			8		N												
	9	N	N			9		N												
30	1	N	N		90	1	N	N		Algal Thickness Rank										
	2	N	N			2		N												
	3	N	N			3		N												
	4	N	N			4		N												
	5	N	N			5		N												
	6	N	N			6		N												
	7	N	N			7		N												
	8	N	N			8		N												
	9	N	N			9		N												
40	1	N	N		100	1	N	N		<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>N</td><td>rough, no algae, slimy, algae up to 1mm</td></tr> <tr><td>3</td><td>>1mm - 6mm</td></tr> <tr><td>4</td><td>>6mm - 20mm</td></tr> <tr><td>5</td><td>>20mm - 10 cm</td></tr> <tr><td>6</td><td>>10 cm</td></tr> </table>	N	rough, no algae, slimy, algae up to 1mm	3	>1mm - 6mm	4	>6mm - 20mm	5	>20mm - 10 cm	6	>10 cm
	N	rough, no algae, slimy, algae up to 1mm																		
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	4	>6mm - 20mm																		
	5	>20mm - 10 cm																		
	6	>10 cm																		
	2	N	N			2		N												
	3	N	N			3		N												
	4	N	N			4		N												
5	N	N		5		N														
6	N	N		6		N														
7	N	N		7		N														
8	N	N		8		N														
9	N	N		9		N														
50	1	N	N		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%.															
	2	N	N																	
	3	N	N																	
	4	N	N																	
	5	N	N																	
	6	N	N																	
	7	N	N																	
	8	N	N																	
	9	N	N																	

DEP FORM FD 9000-32: LINEAR VEGETATION SURVEY FIELD SHEET

Waterbody: Suit Creek Date: 10/30/19 County: _____ Storet Number: _____
 Analyst: J. Parrish & K. Appleby 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 m² 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										Specimen collected (check)	HERBACEOUS SPECIES	Meter Mark										Specimen collected (check)
	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100			0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	
Alternanthera philoxeroides	P	P	P	P	P	P	P	P	P	P		Micranthemum glomeratum											
Bacopa caroliniana												Micranthemum umbrosum											
Bacopa monnieri												Myriophyllum aquaticum											
Bidens mitis												Najas guadelupensis											
Boehmeria cylindrica												Nuphar luteum											
Centella asiatica												Orontium aquaticum											
Ceratophyllum demersum												Panicum hemitomon											
Chara												Panicum repens											
Cicuta maculata												Panicum rigidulum											
Cladium jamaicense				P			P	P	P	P		Pistia stratioides	P	P	P	P	P	P	P	P	P	P	
Colocasia esculenta												Polygonum glabra											
Commelina diffusa												Polygonum hydropiperoides											
Commelina virginica												Polygonum punctatum											
Crinum americanum												Pontederia cordata											
Diodia virginiana												Potamogeton illinoensis											
Eichhornia crassipes												Ruellia simplex											
Eleocharis (wispy viviparous)												Sagittaria latifolia				P		P	P				
Hydrilla verticillata												Sagittaria lancifolia											
Hydrocotyle	P	P	P	P	P	P	P	P	P	P		Salvinia minima	P	P	P	P	P	P	P	P	P	P	
Hygrophila polysperma												Samolus parviflora											
Hymenocallis												Saururus cernuus											
Lachnanthes caroliniana												Sparganium americanum											
Landoltia punctata												Typha											
Lemna												Vallisneria spiralis											
Limnophila sessiflora												Zizania aquatica											
Ludwigia leptocarpa												Myrica	P	P	P	P	P	P	P	P	P	P	
Ludwigia palustris												Taxodium	P	P	P	P	P	P	P	P	P	P	
Ludwigia peruviana	P	P	P	P	P	P	P	P	P	P		Cephalanthus	P	P	P	P	P	P	P	P	P	P	
Ludwigia repens												Mikania	P	P	P	P	P	P	P	P	P	P	
Luziola fluitans												Alnus	P	P	P	P	P	P	P	P	P	P	
												Rhynchospora											
												Ceratopteris				P							
												Salix					P	P		P			
												Oxycorrum								P	P		
												Hibiscus								P	P		
Indicate % cover macrophytes per section																							
0-5% Macrophyte Coverage																							
>5 and ≤10% Macrophyte Coverage												✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
>10 and ≤25% Macrophyte Coverage																							
>25 and ≤50% Macrophyte Coverage																							
> 50% Macrophyte Coverage																							

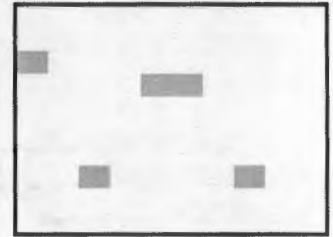
FDEP FORM FD 9000-32 LINEAR VEGETATION SURVEY FIELD SHEET

Percent Cover Categories for macrophytes in a 10 m segment of a stream 5 m wide

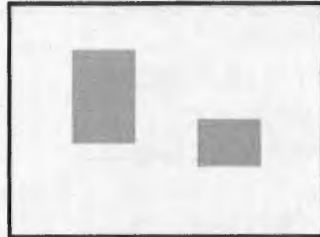
5% Macrophyte Coverage



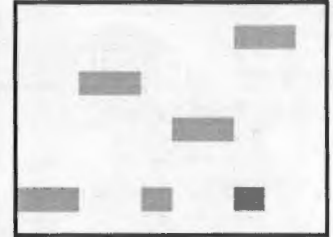
5% Macrophyte Coverage



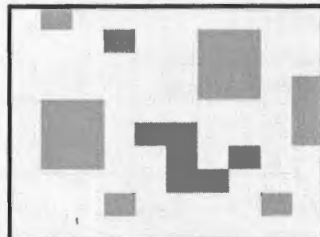
10% Macrophyte Coverage



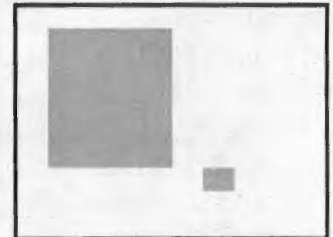
10% Macrophyte Coverage



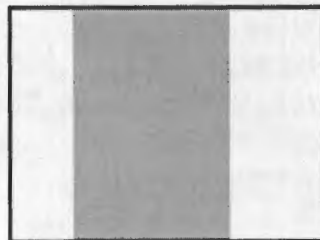
25% Macrophyte Coverage



25% Macrophyte Coverage



50% Macrophyte Coverage



50% Macrophyte Coverage



LSJR Palatka

Central Laboratory Submittal Form

last revised Jan 25, 2018

Customer: NE-DIST

Requester: Jeremy M. ParrishField Report Prepared By: Kimberly Appleby

Project ID: SMP

Collected By: J. Parrish + K. ApplebySampling Agency: FDEP NE ROL

Location	WIN ID/Field ID:		G2NE1194	☐ Comp ☒ Grab	Collection (comp begin or grab)	☒ Eastern ☐ Central	Composite end	Bottle Group(s)
Field ID				Date	10/30/19	Time	1015	(See pg 2)
WIN/STC				Matrix (type, e.g., Salt, Fresh, etc)	Fresh	Diss. Oxygen	2.89	Total Res. Chlorine (mg/L)
				Temp (C)	27.1	pH	6.77	Sp. Conductance (umho/cm)
				Salinity (ppt)	0.33	Comments		
Latitude	☐ dd ☐ dms	Longitude	☐ dd ☐ dms					
Locatio	WIN ID/Field ID:		G2NE1187	☐ Comp ☒ Grab	Collection (comp begin or grab)	☒ Eastern ☐ Central	Composite end	Bottle Group(s)
Field ID				Date	10/30/19	Time	1240	
WIN/S				Matrix (type, e.g., Salt, Fresh, etc)	Fresh	Diss. Oxygen	5.1	Total Res. Chlorine (mg/L)
				Temp (C)	26.9	pH	7.31	Sp. Conductance (umho/cm)
				Salinity (ppt)	0.33	Comments		
Latitude	☐ dd ☐ dms	Longitude	☐ dd ☐ dms					
Locati	WIN ID/Field ID:		20030577	☐ Comp ☒ Grab	Collection (comp begin or grab)	☒ Eastern ☐ Central	Composite end	Bottle Group(s)
Field I				Date	10/30/19	Time	1305	
WIN/E				Matrix (type, e.g., Salt, Fresh, etc)	Fresh	Diss. Oxygen	5.47	Total Res. Chlorine (mg/L)
				Temp (C)	24.8	pH	7.07	Sp. Conductance (umho/cm)
				Salinity (ppt)	1.25	Comments		
Latitude	☐ dd ☐ dms	Longitude	☐ dd ☐ dms					
Locatio	WIN ID/Field ID:		20030557	☐ Comp ☒ Grab	Collection (comp begin or grab)	☒ Eastern ☐ Central	Composite end	Bottle Group(s)
Field IC				Date	10/30/19	Time	1340	
WIN/ST				Matrix (type, e.g., Salt, Fresh, etc)	Fresh	Diss. Oxygen	4.71	Total Res. Chlorine (mg/L)
				Temp (C)	24.8	pH	7.06	Sp. Conductance (umho/cm)
				Salinity (ppt)	0.42	Comments		
Latitude	☐ dd ☐ dms	Longitude	☐ dd ☐ dms					

Relinquished By:	Date/Time	Shipping Method	Number of Coolers Shipped:	Received By:	Date/Time
<u>K. Appleby</u>	<u>10/30/19 1530</u>	<u>Fed Ex</u>	<u>2</u>		

Group: A	Bottle Type:	P-1L	# of Bottles: 2	Preservative:	ICE	Enter Number of Bottles Sent to Lab	<u>2</u>
	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	<u>2</u>
	CHLSUITE-W						
Group: A	Bottle Type:	P-120ML-WC-THI	# of Bottles: 4	Preservative:	ICE	Enter Number of Bottles Sent to Lab	<u>4 → sent to ALS</u>
	NE-ALS-ECQ						
Group: A	Bottle Type:	P-500ML	# of Bottles: 2	Preservative:	HNO3	Enter Number of Bottles Sent to Lab	<u>2</u>
	W-ICP						
	W-ICPMS						
Group: A	Bottle Type:	P-500ML	# of Bottles: 2	Preservative:	ICE And H2SO4	Enter Number of Bottles Sent to Lab	<u>2</u>
	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	<u>2</u>
	W-PO4-F						
Group: B	Bottle Type:	P-1L	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab	<u>2 1</u>
	ALKALINITY						
	TURBIDITY						
	W-CL-IC						
	W-COLOR						
	W-F						
	W-SO4-IC						
	W-TDS						
	W-TSS						

Group: B	Bottle Type: BP-1L	# of Bottles: 1	Preservative: ICE	Enter Number of Bottles Sent to Lab	<u>1</u>
CHLSUITE-W					
Group: B	Bottle Type: P-120ML-WC-THI	# of Bottles: 2	Preservative: ICE	Enter Number of Bottles Sent to Lab	<u>2 → sent to ALS</u>
NE-ALS-ECQ					
Group: B	Bottle Type: BG-500ML	# of Bottles: 1	Preservative: ICE	Enter Number of Bottles Sent to Lab	<u>1</u>
W-E8321-DI W-E8321-MS					
Group: B	Bottle Type: P-500ML	# of Bottles: 1	Preservative: HNO3	Enter Number of Bottles Sent to Lab	<u>1</u>
W-ICP W-ICPMS					
Group: B	Bottle Type: P-500ML	# of Bottles: 1	Preservative: ICE And H2SO4	Enter Number of Bottles Sent to Lab	<u>1</u>
W-NH3 W-NO2NO3 W-S-A-TP W-TKN W-TOC					
Group: B	Bottle Type: P-125ML	# of Bottles: 1	Preservative: FILTER-ICE	Enter Number of Bottles Sent to Lab	<u>1</u>
W-PO4-F					
Group: C	Bottle Type: P-1L	# of Bottles: 1	Preservative: ICE	Enter Number of Bottles Sent to Lab	<u>1</u>
ALKALINITY TURBIDITY W-CL-IC W-COLOR W-F W-SO4-IC W-TDS W-TSS					
Group: C	Bottle Type: BP-1L	# of Bottles: 1	Preservative: ICE	Enter Number of Bottles Sent to Lab	<u>1</u>
CHLSUITE-W					
Group: C	Bottle Type: P-120ML-WC-THI	# of Bottles: 2	Preservative: ICE	Enter Number of Bottles Sent to Lab	<u>2 → sent to ALS</u>
NE-ALS-ECQ					
Group: C	Bottle Type: BG-500ML	# of Bottles: 1	Preservative: ICE	Enter Number of Bottles Sent to Lab	<u>—</u>

Group: C	Bottle Type: BG-500ML	# of Bottles: 1	Preservative: ICE	Enter Number of Bottles Sent to Lab	1
W-E8321-DI					
W-E8321-MS					
Group: C	Bottle Type: P-500ML	# of Bottles: 1	Preservative: HNO3	Enter Number of Bottles Sent to Lab	1
W-ICP					
W-ICPMS					
Group: C	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					
Group: C	Bottle Type: P-125ML	# of Bottles: 1	Preservative: FILTER-ICE	Enter Number of Bottles Sent to Lab	1
W-PO4-F					
Group: C	Bottle Type: BG-1L	# of Bottles: 4	Preservative: ICE	Enter Number of Bottles Sent to Lab	4
W-PSNP-TQ					