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: YSI DESI **RQ-** ~~2021-05-24-08~~ 2021-04-26-16 **Project:** ~~Cannon SCF~~ SJW South Central

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	Barometer mmHg	D.O. Chart mg/L	Meter D.O. mg/L	% DO	Probe Charge	Probe Gain	Pass / Fail	Lab / Field
Calibr.	JPamsh	5/12/21	744	23.5	762	8.5	8.5	100.3	—	1.061	(P)/F	(L)/F
ICV	↓	↓	745	23.6	762	8.5	8.53	100.3	—	1.061	(P)/F	(L)/F
CCV	Kim Appleby	↓	1656	24.2	760.6	8.4	8.41	100.2	—	1.061	(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 μmhos/cm	Meter Reading μmhos/cm	Pass / Fail	Lab / Field
Calibr.	JPamsh	5/12/21	746	201222B	1/22	1000	1000	(P)/F	(L)/F
ICV	↓	5/12/21	747	201222A	1/22	100	102.5	(P)/F	(L)/F
CCV	Kim Appleby	5/12/21	1658			1413	1404	(P)/F	(L)/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.	JPamsh	5/12/21	748	2010F27	10/22	7.00	23.8	7.01	-41.1	(P)/F	(L)/F
Calibr.	↓	5/12/21	749	2010631	9/22	4.00	23.9	4.00	139.1	(P)/F	(L)/F
Calibr.	↓	5/12/21	750	2012797	8/22	10.00	23.5	10.02	-213.1	(P)/F	(L)/F
ICV	↓	5/12/21	~~751~~ 751	~~2012797~~ 2010631	~~8/22~~ 9/22	4.00	23.9	4.02	138.8	(P)/F	(L)/F
CCV	Kim Appleby					10.00	24.3	10.02	-214.5	(P)/F	(L)/F
CCV		5/12/21	1700	2012797	9/22					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	JPam	5/12/21	752	0.00	0.00	(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:

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2020

Meter Passed End of Day CCV
Yes / No

WIN Station Name: CANNON CREEK @ CR 341 (SISTERS WELCOME RD.) **Date:** 5/12/2021

WIN/Field ID: 21030090 **WBID:** 3520 **ENR:** - **Latitude:** 30.1588

County: COLUMBIA **Org ID:** 21FLA **Longitude:** -82.67

Receiving Body of Water: Suwannee **RQ-** 2021-03-29-08

Sampling Team Members	WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
[x] Jeremy Parrish	x		x		
[x] Kimberly Appleby		x		x	x
[ ]					
[ ]					

Sampling Equipment

- [x] Sample Container
- [ ] Dipper
- [ ] Syringe
- [ ] Carboy
- [ ] Van Dorn
- [ ] Pole

Depth measured with: Meter

Secchi Equipment ID:

Collection Method

- [x] **Wading**
- [ ] **From Shore**
- [ ] **Other** _____
- [ ] **Canoe/Kayak**
- [ ] **Electric Motor**
- [ ] **Gasoline Motor**

Water Level: [ ] Normal [x] Low [ ] High [ ] Dry [ ] Pooled [ ] Flooded

Meter ID# DESI

Photos: NO **Flow:** FLOW **Tide:**

Tide Times: High: Low:

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

SBIO ID Numbers:

Notes:

Duplicate Sample

Time Zone: EST **Time:** **Field ID:** N/A (WIN ID_DUP)

WIN DMT Activity ID:

Blank

Time Zone: **Time:** **Field ID:** (Blank Type_DDMMYYYY)

DI Source: **Location:**

DI Type: **Equipment ID:**

DI Container (Name/ID): **DI Container Type:**

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)

RQ-2021-03-29-08
Customer: WQAP
Project ID: SMP

Collected By: Jeremy Parrish, Kimberly Appleby
Field Report Prepared By: Jeremy Parrish
Sampling Agency: FDEP

Place Label Here

WIN ID/Field ID: 21030090

Location: CANNON CREEK @ CR 341 (SISTERS WELCOME RD.)

Comments: Microbiology sample(s) submitted to contract laboratory

Matrix: Fresh

(Check one) ☒ GRAB ☐ COMPOSITE

Date	Time	DO (mg/L)	DO (%SAT)	Temp. (C°)	pH	Sample Depth (m)	Secchi Disk (m)	Total Depth (m)	Sp COND (µmhos/cm)	Salinity (PPTh)
5/12/2021	1000 EST	3.01	33.7	21	6.91	0.09	0.1 ☒ VOB (S)	0.1	192.5	0.09
							Central Lab please use top row for login purposes			
	EST									

Parameter Suite	Parameter Methods			Preservation	pH Check	# Bottles sent to Lab	Bottle Group
Preserved Nutrients (P-500ML)	☒ W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP			☒ Ice ☒ H_2SO_4*	☒ <2	1	A
	Lot #	Sa0353110	**Exp:**	1/11/22			
Metals (P-500ML)	☒ W-ICPMS ☒ W-ICP ☒ W-HARD			☒ Ice ☒ HNO_3*	☒ <2	1	A
	Lot #	Na0344060	**Exp:**	1/4/22			
Filtered Nutrients (P125ML)	☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter			☒ Ice		1	A
	Filter Lot #	Ronb29490sa					
	Syringe Lot #						
Chlorophyll (BP-1L)	☒ CHLSUITE-W			☒ Ice		1	A
Physical/Aggregate (Fresh) (P-1L)	☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-Cl-IC / W-COLOR / TDS / W-SO4-IC / W-			☒ Ice		1	A
Physical/Aggregate (Marine) (P-1L)	☐ Alkalinity / W-BR-IC / W-F / W-TSS / TURBIDITY			☐ Ice			
Macroinvertebrates (PJ-2L)	☒ MI-FW-QLDC			☒ Formalin		2	B
Periphyton (PT-50ML)	☐ ALGAE-ID			☐ Ice			
Microbiology (Contract Lab Bottle)	☒ E Coli ☐ F Coli ☐ Enterococci ☒ Contract Lab			☒ Ice		1	A
Molecular (QPCR-P-500ML)	☐ PCR-HF183 ☐ PCR-BacR ☐ PCR-DG3 ☐ PCR-GULL2 ☐ PCR-GFD ☐			☐ Ice			
Tracers (BG-500ML)	☒ W-E8321-DI ☒ W-E8321-MS			☒ Ice		1	A
Pesticides (BG-500ML) (BG-1L)	☐ W-E8321-DI ☐ WE8321-MS ☒ W-PSNP-TQ ☐ W-CT-CL-R ☐ W-PCL-SQ-R ☐ W-CARB-AA (5 ml of MCAA** Buffer Solution) ☐ W-DIELDRIN			☒ Ice		3	A
Phytoplankton/Periphyton	☐ DTM-QL-C ☐ PEN-QL-C ☐ DTY-QN-C ☐ PKD-QN-C ☐ DTM-QN-C ☐ PRN-QN-C ☐ PKD-QN-BV			☐ Ice			

Name:
Jeremy Parrish
Kimberly Appleby

Signature: Jeremy Parrish

Date: 5/12/2021

*2.0 ml of Preservative used unless noted otherwise.
**MCAA: Monochloroacetic acid buffer solution

CHAIN OF CUSTODY / LABORATORY ANALYSIS REQUEST FORM

SR #

ALS Contact: Mandy Sullivan

9143 Philips Highway, Suite 200 Jacksonville, FL 32256 / Ph(904) 739-2277 / FAX (904) 739-2011

Client Name	Project Number
FDEP-NE ROC	RQ-2021- 03-29-08
Report To	**Report CC**
Dep-Overflowmicro@dep.state.fl.us	Suwannee Central SLT
Company/Address	
8800 Baymeadows Way W Jacksonville, Fl 32256	
Phone #	**FAX #**
904-256-1700	
Sampler's Signature	**Sampler's Printed Name**
	Kim Appleby

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	Matrix	NUMBER OF CONTAINERS	E.Coli	Enterocooi	Preservat	8	8	REMARKS
Z10300 90		5/12/21	1000	SW	1	X					Fresh

Preservative Key
0. None
1. HCL
2. HNO3
3. H2SO4
4. NaOH
5. Zn. Acetate
6. MeOH
7. NaHSO4
8. ICE

Special Instructions/Comments: Email Report to: Dep-Overflowmicro@dep.state.fl.us

1:4

TURNAROUND REQUIREMENTS
- ___ RUSH (SURCHARGES APPLY)
- X STANDARD

REQUESTED FAX DATE
N/A

REQUESTED REPORT DATE
N/A

REPORT REQUIREMENTS
- ___ I. Results Only
- ___ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
- ___ III. Results + QC and Calibration Summaries
- ___ IV. Data Validation Report with Raw Data

Edata ___ Yes ___ No

INVOICE INFORMATION
P.O. # B10739
Bill to:

Relinquished By	Received By	Relinquished By	Received By	Relinquished By	Received By
Signature	Signature	Signature	Signature	Signature	Signature
Printed Name: Kim Appleby	Printed Name: Che Weigand	Printed Name	Printed Name	Printed Name	Printed Name
Firm: FDEP NE ROC	Firm: ALS	Firm	Firm	Firm	Firm
Date/Time: 5/12/21 1527	Date/Time: 5/12/21 1528	Date/Time	Date/Time	Date/Time	Date/Time

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

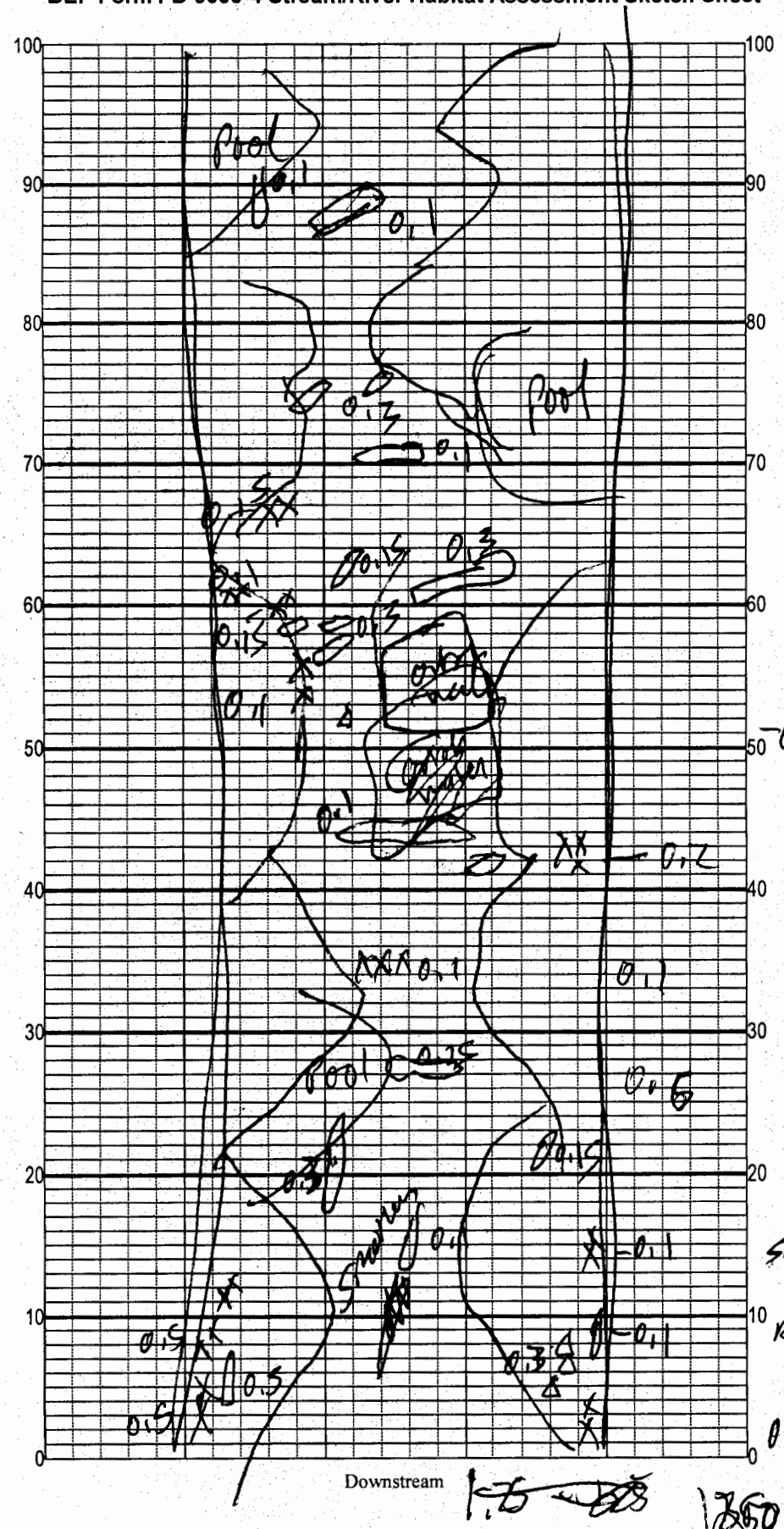
SAMPLING AGENCY:		STORET STATION NUMBER:	DATE (MM/DD/YY):	RECEIVING BODY OF WATER:
		21030090	5/12/21	
REMARKS:	COUNTY: Columbia	LOCATION: Cannon Creek 341 Sisters Welcome		FIELD ID/NAME:

Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components **Substrate Diversity** 8	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 5	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 6	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 10 Primary Score 29	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** 15	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 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 4 Left Bank 4	Bankfull > 60% of bank height. Slope of bank ≤ 60° from bankful to top of bank. Bankfull is within or above the woody 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 woody root zone with raw, eroded areas. 3 2 1
Riparian Buffer Zone Width Right Bank 10 Left Bank 8	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 9 Secondary Score 60	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

89 **TOTAL SCORE**

Date: 5/12/21	Analyst: J Parm	Signature: J Parm

DEP Form FD 9000-4 Stream/River Habitat Assessment Sketch Sheet



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

Location: Cannon Siding 341

Date: 5/12/26

Sampler: JP/KA

100 m: Latitude	
Longitude	
0 m: Latitude	
Longitude	

Substrates: Code key, draw proportionate habitat abundance. %

☑	Snags	3.75
☒	Roots/undercut banks	1.5
☐	Leaf Packs (or mats)	
☐	Aquatic Macrophytes	
☐		
☐		
☐	Pools	total # observed = ____ # range expected = ____

Average width 1.25 m

Average depth 0.1 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: 3.75

Snags = 0.2 + 0.5 + 0.75 + 0.15 + 0.1 + 0.1 + 0.25 + 0.3 + 0.1 ≈ 3.75 4m

Root = 1 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 = 2m root 1.5%

1.25 = 1%
2.5 = 2%
3.7 <

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

SAMPLE ID 20103090 ORG ID 21FLA LATITUDE
COUNTY Columbia STORET # 21030090 LONGITUDE
DATE 5/21 TIME 1000 SAMPLING AGENCY FDEP NE Rd
SITE NAME Cannon Creek Sistas Welcome County Rd 341
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):

Local Watershed Erosion (select one): ☐ None ☒ ~~Slight~~ No ☒ Moderate ☐ Heavy

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

Width of Riparian Vegetation (m) on Each Buffer Side
Left Bank: 12-18 Right Bank: >18

Hydrologic Modification Score (per FT 3101):

High Water Mark: 0.7 (m) + 0.1 (above present water level) = 0.8 (present depth) (above bed)

Artificially Impounded ☐ Yes ☒ No

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

m/s	0.05 m/s	m/s
m deep	0.1 m deep	m deep

Artificially Channelized: ☐ No ☒ Mostly recovered, more sinuous ☐ 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

	None	Slight	Moderate	Severe
Sand Smothering:	☐	☒	☐	☐
Silt Smothering:	☐	~~☒~~ No ☒	☐	☒
Algae Smothering:	☐	☐	~~☒~~ No ☒	☐

SUBSTRATE TYPE

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

	% Coverage	INVERT # Times Sampled	PERI # Times Sampled
Woody Debris (Snags)	3.5	7	
Undercut Banks / Roots	1.5	7	
Leaf Packs or Mat			
Aquatic Vegetation	<1	1	
Rock or Shell Rubble..			
Sand.....	~95	5	
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:								0.1
Mid:	~~0.04~~	~~21~~	6.91	3.01	33.7	192.5	0.09	☒ VOB
Bottom	0.1	~~22.5~~	~~6.76~~	~~6.72~~	~~71.5~~	~~97.7~~	~~0.03~~	TOTAL DEPTH 0.1

Meter ID:

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~~ No ☒ 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:

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

SAMPLING TEAM Jan Parr

SIGNATURE: Jan Parr DATE: 5/12/21

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: Cannon Creek Sisters Welcome County Rd 741 | County: Columbia | Date: 5/12/21 | Investigators: Kim Appleby + Jeremy Purvis

STORET Station Number: 21030090

Transect (m)	Point 1=right 9=left	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover	Transect (m)	Point 1=right 9=left	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover
0	1	N			60	1	N		
	2					2	3		
	3					3	3		
	4			92		4	N		92
	5					5	N		
	6					6	4		
	7					7	3		
	8					8	3		
	9					9	3		
10	1	N			70	1	N		
	2					2			
	3					3			
	4			96		4			80
	5					5			
	6					6			
	7					7			
	8					8			
	9	N				9	4		
20	1	N			80	1	3		
	2					2	N		
	3					3			
	4	5				4			92
	5	5		50		5			
	6	4				6			
	7	6				7			
	8	5				8			
	9	3				9			
30	1	3			90	1	N		
	2	2				2	4		
	3					3	5		
	4			92		4	5		80
	5					5	4		
	6					6	N		
	7		✓			7			
	8					8			
	9	N				9			
40	1	N			100	1	N		
	2					2			
	3					3			
	4			94		4			74
	5					5			
	6					6			
	7					7			
	8					8			
	9					9			
50	1	N							
	2	N							
	3	5							
	4	5							
	5	5		76					
	6	6							
	7	5							
	8	5							
	9	N							

Secchi depth	0.1(E)
Estimated?	

# points ranked 4-6	13
total points assessed	99
% points ranked 4-6	13

Check accompanying data collected at same site/date.	
Algal mat sample	
Linear Veg Survey	✓
Habitat Assessment	✓
SCI/Biorecon	✓
Water sample	✓
RQ- ~~03~~ KA	2021-03-29-08

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

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%.

62-160.800, F.A.C. Revision Date: January 2017

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

Waterbody: Cannon Creek Sisters Welcome | Date: 5/12/21 | County: Columbia | Storet Number: 21030090

Analyst: Kim Appleby & Jeremy Parrish | 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											
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)											
Hydrilla verticillata											
Hydrocotle											
Hygrophila polysperma											
Hymenocallis											
Lachnanthes caroliniana											
Landoltia punctata											
Lemna											
Limnophila sessiflora											
Ludwigia leptocarpa											
Ludwigia palustris											
Ludwigia peruviana											
Ludwigia repens						✓					
Luziola fluitans											
If no Dominant or Co-Dominant were selected, indicate with "X"											
Indicate % cover macrophytes per section											
0-5% Macrophyte Coverage	X	X	X	X	X	X	X	X	X		
>5 and ≤10% Macrophyte Coverage											
>10 and ≤25% Macrophyte Coverage											
>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											
Orontium aquaticum	✓										
Panicum hemitomon											
Panicum repens											
Panicum rigidulum											
Pistia stratioides											
Polygonum glabra											
Polygonum hydropiperoides											
Polygonum punctatum											
Pontederia cordata											
Potamogeton illinoensis											
Ruellia simplex											
Sacciolepis striata											
Sagittaria kurziana											
Sagittaria lancifolia											
Sagittaria latifolia											
Salvinia minima											
Samolus parviflora											
Saururus cernuus											
Sparganium americanum											
Typha											
Vallisneria americana											
Zizania aquatica											