FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

October 2017

PAGE 1 OF 1

Data Qualified? Yes / No

Location/STORET Station Name: Mill Cr @ Bellamy Rd **Date:** 12/19/17 (mm/dd/yyyy)

STORET # 21030126 **WBID:** 3644 **Latitude:** 29.8447 (Decimal Degrees)

County: Alachua **RQ -** 2017-12-18-11 **ORG ID:** 21 FLA **Longitude:** 82.5018 (Decimal Degrees)

Receiving Body of Water: Mill Creek Sink **Field ID:** See label

Sampling Team Members	WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
J. Parrish	✓	X	X	X	X
P. O'Connor	X		X		

Sampling Equipment

☒ Sample Container ☐ Van Dorn ☐ Pole
☐ Carboy ☐ Syringe
☐ Dipper ☐ Other _____
Equipment ID ORTHO # 2

Collection Method

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

Water Level: Dry / Low / (Normal) / Above Normal / Flooded **Meter ID#** QUANTA #1 **Matrix:** (Fresh) / Marine / DI

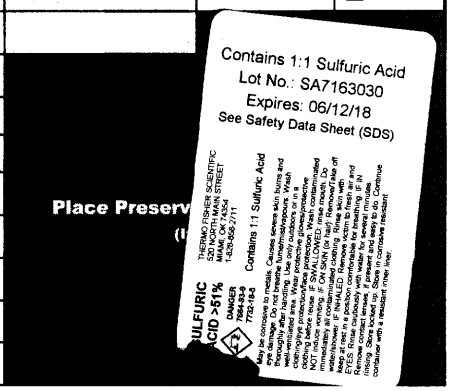
Photos: Yes / (No) **Flow:** No Flow / Intestital / (Flowing) / NA **Tide:** Rising/ Falling/ Slack/ (NA) **Tide Times:** High Low

Time Zone	Time	Sample Depth (m)	Total Depth (m)	DO (mg/L)	DO (%SAT)	pH	Salinity (PPTh)	Secchi Disk (m)	Sp COND (µmhos/cm)	Temp. (C⁰)
EST	0920	0.3	0.5	6.33	65.0	7.7	0.02	0.55 VOD	116	17.2
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_2SO_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-Cl-IC / W-COLOR / W-SO4-IC / W-TDS	☒ Ice			
Physical/Aggregate (Marine)	☐ Alkalinity / 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-HF183 ☐ PCR-BacR ☐ PCR-GULL2 ☐ PCR-GFD	☐ Ice			
Tracers	☒ W-SUC-AA-R ☒ W-UHERB-AA ☒ W-AHERB-AA	☒ Ice			
Pesticides	☐ W-PSNP-TQ ☐ W-UHERB-AA ☐ W-AHERB-AA ☐ W-PCL-SQ-R ☐ W-PYR-AA-R ☐ W-GLYPH ☐ W-SUC-AA-R	☐ Ice ☐ Other			



Notes:

field ID G1NE0605 12192017

Mill Creek @ Bellamy/Alligator Rd storet ID 21030126

Signature: Patrick O'Connor **Date:** 12-19-17

Field Parameters Entered into LIMS: JJP 12/21/17 (Initials/Date) **Field Parameters QC in LIMS:** _____

Date Migrated to STORET: _____ **Field Sheets Scanned/Saved:** NF 12/21/17 (Initials/Date)

78147 JM 12/21/17

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

SAMPLE ID ______ ORG ID 21FLA LATITUDE 29.8447
COUNTY Alachua STORET # 21030126 LONGITUDE 825018
DATE 12-19-17 TIME 0920 SAMPLING AGENCY DEAR NED ROC
SITE NAME Mill Creek @ Bellamy RD
FIELD ID/NAME GINE0605 12192017 RECEIVING BODY OF WATER Mill Creek Sink

RIPARIAN ZONE / STREAM FEATURES

Meter ID: QUANTA #1

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)
85		15						

Local Watershed Erosion (select one): [X] None [ ] Slight [ ] Moderate [ ] Heavy

Local Watershed NPS Pollution: [X] No evidence [ ] Slight [ ] Moderate [ ] Heavy

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

Hydrologic Modification Score (per FT 3101): ______

Typical Width (m) Depth (m)/Velocity (m/sec) Transect 2 m wide

___ m/s 0.2 m/s ___ m/s

___ m deep 0.5 m deep ___ m deep

High Water Mark: 0.6 (above present water level) + 0.5 (present depth) = 1.1 (above bed) (m)

Artificially Impounded [ ] Yes [X] No

Artificially Channelized: [X] No [ ] Some recovery [ ] Mostly recovered, more sinuous [ ] Recent, severe

Canopy Cover % [ ] Open [X] Heavily Shaded [ ] Lightly Shaded (11-45%) [ ] Moderate Shaded (46-80%)

SEDIMENT / SUBSTRATE

Sediment Oils [X] Absent [ ] Slight [ ] Moderate [ ] Profuse

Sediment Odors [X] Normal [ ] Sewage [ ] Petroleum [ ] Chemical [ ] Anaerobic [ ] Other (Specify):

Smothering of Substrates
Sand Smothering: None [ ] Slight [X] Moderate [ ] Severe [ ]
Silt Smothering: None [ ] Slight [X] Moderate [ ] Severe [ ]
Algae Smothering: None [X] Slight [ ] Moderate [ ] Severe [ ]

SUBSTRATE TYPE

Assessment Tool: [X] SCI [ ] RPS [ ] LVS [ ] LCI [ ] BioRecon

	% Coverage	INVERT # Times Sampled	PERI # Times Sampled
Woody Debris (Snags)	7	4	
Undercut Banks / Roots	2	4	
Leaf Packs or Mat	3	4	
Aquatic Vegetation	—		
Rock or Shell Rubble..	1	4	
Sand........................	85+	4	
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:								0.55
Mid:	0.3	17.2	7.7	6.33	65.0	116	0.08	TOTAL DEPTH 0.5
Bottom								

System Type: Stream [X] Lake [ ] Wetland [ ] Estuary [ ] Other(Specify) [ ] ______

Water Odors Normal [X] Petroleum [ ] Sewage [ ] Chemical [ ] Other [ ]

Water Surface Oils Normal [X] Sheen [ ] Globs [ ] Slick [ ] Other [ ]

Water Sample Taken? [X] Yes [ ] No
Sample Preserved? [ ] Yes [ ] No
Lot Number: SA7163030 Exp: 06-12-18

Color Tannic [X] Green (Algae) [ ] Clear [X] Other (Specify) [ ]

Algae Sample Taken? [ ] Yes [X] No
Sample Preserved? [ ] Yes [ ] No
Lot Number: ______ Exp: ______

Clarity Clear [X] Slightly Turbid [X] Turbid [ ] Opaque [ ]

ABUNDANCE	Not Obs.	Rare	Common	Abundant
Periphyton:	[X]	[ ]	[ ]	[ ]
Fish:	[ ]	[X]	[ ]	[ ]
Aquatic Plants:	[ ]	[X]	[ ]	[ ]
Iron/Sulfur Bacteria:	[ ]	[X]	[ ]	[ ]

AMBIENT FIELD CONDITIONS / NOTES:

Hydrologic Disturbance Scoring [X] 1-2 [ ] 3-4 [ ] 5-6 [ ] 7-8 [ ] 9-10

[X] The antecedent hydrologic conditions have been met to my best knowledge.

SAMPLING TEAM J. Parrish, P O'Connor

SIGNATURE: P. O'Connor

62-160.800, F.A.C. Revision Date: March 1, 2014

78147 mrdln

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site:	County:	Date:	Investigators:
Mill Creek @ Bell Amy Rd	Alachua	12-19-17	J Parrish, R O'Connor

STORET Station Number:

Transect (m)	Point 1=right 9=left	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover
0	1	N	N	
	2	N		
	3	N		
	4	N		
	5	N		96%
	6	N		
	7	N		
	8	N		
	9	N	N	
10	1	N	N	
	2			
	3			
	4			
	5			96
	6			
	7			
	8			
	9			
20	1	N	N	
	2			
	3			
	4			
	5			92
	6			
	7			
	8			
	9			
30	1	N	N	
	2			
	3			
	4			
	5			96
	6			
	7			
	8			
	9			
40	1	N	N	
	2			
	3			
	4			
	5			96
	6			
	7			
	8			
	9			
50	1	N	N	
	2			
	3			
	4			92
	5			
	6			
	7			
	8			
	9			

Transect (m)	Point 1=right 9=left	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover
60	1	N	N	
	2			
	3			
	4			
	5			96
	6			
	7			
	8			
	9		N	
70	1	N	N	
	2			
	3			
	4			
	5			96
	6			
	7			
	8			
	9			
80	1	N	N	
	2			
	3			
	4			
	5			96
	6			
	7			
	8			
	9			
90	1	N	N	
	2			
	3			
	4			
	5			92
	6			
	7			
	8			
	9			
100	1	N	N	
	2			
	3			
	4			
	5			96
	6			
	7			
	8			
	9			

Secchi depth	VOB
Estimated?	NO

# points ranked 4-6	0
total points assessed	99
% points ranked 4-6	0

Check accompanying data collected at same site/date.	
Algal mat sample	NN
Linear Veg Survey	NO
Habitat Assessment	Y
SCI/Biorecon	Y
Water sample	

RQ-2017-12-18-11

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%.

78147 **DEP FORM FD 9000-32: LINEAR VEGETATION SURVEY FIELD SHEET**

JM 12/21/17

Waterbody: Mill Cr. @ Bell Amy Rd.	Date: 12-19-17	County: Alachua	Storet Number: 21030126
Analyst: J. PARRISH, P. O'Connor		Signature: Patrick O'Connor	
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.

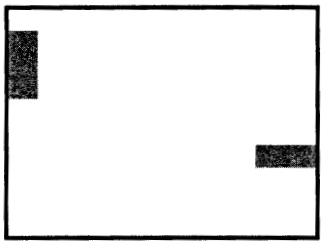
HERBACEOUS SPECIES	Meter Mark 0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	Specimen collected (check)	HERBACEOUS SPECIES	Meter Mark 0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	Specimen collected (check)
Alternanthera philoxeroides												Micranthemum glomeratum											
Bacopa caroliniana												Micranthemum umbrosum											
Bacopa monneri												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												Pistia stratioides											
Colocasia esculenta												Polygonum glabra											
Commelina diffusa												Polygonum hydropiperoides											
Commelina virginica												Polygonum punctatum											
Crinum americanum												Pontedaria cordata											
Diodia virginiana												Potamogeton illinoensis											
Eichhornia crassipes												Ruellia simplex											
Eleocharis (wispy viviparous)												Sacciolepis striata											
Hydrilla verticillata												Sagittaria kurziana											
Hydrocotle												Sagittaria lancifolia											
Hygrophila polysperma												Sagittaria latifolia											
Hymenocallis												Salvinia minima											
Lachnanthes caroliniana												Samolus parviflora											
Landoltia punctata												Saururus cernuus											
Lemna												Sparganium americanum											
Limnophila sessiflora												Typha											
Ludwigia leptocarpa												Vallisneria americana											
Ludwigia palustris												Zizania aquatica											
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																							
>5 and ≤10% Macrophyte Coverage																							
>10 and ≤25% Macrophyte Coverage																							
>25 and ≤50% Macrophyte Coverage																							
> 50% Macrophyte Coverage																							

NO AQUAtic Vegetation

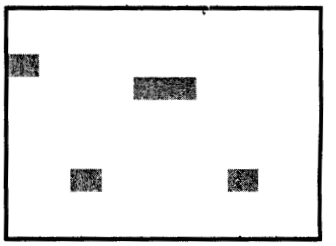
FDEP FORM FD 9000-32 LINEAR VEGETATION SURVEY FIELD SHEET

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

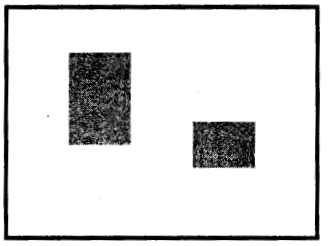
5% Macrophyte Coverage



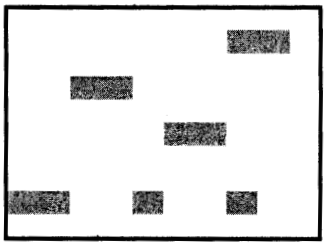
5% Macrophyte Coverage



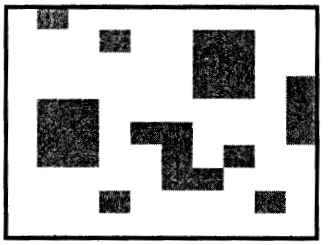
10% Macrophyte Coverage



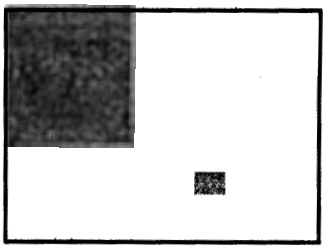
10% Macrophyte Coverage



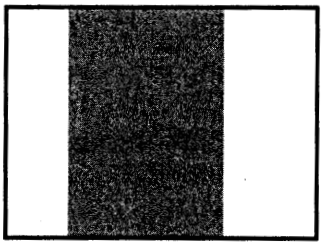
25% Macrophyte Coverage



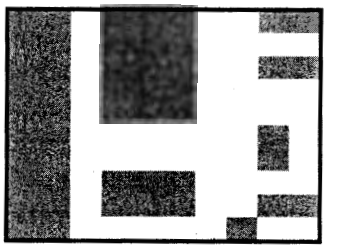
25% Macrophyte Coverage



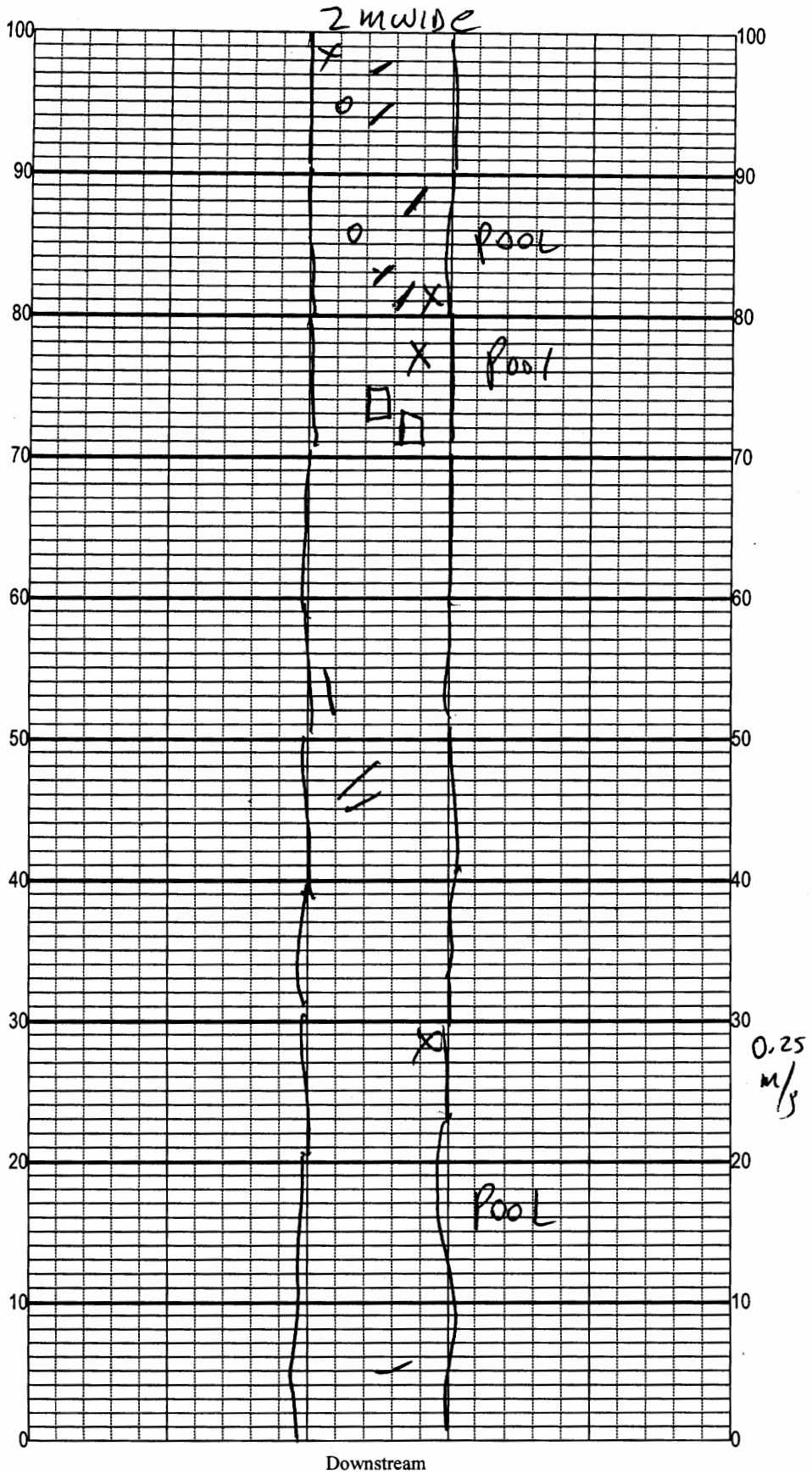
50% Macrophyte Coverage



50% Macrophyte Coverage



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



Left Bank

Downstream

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

Location: Mill Cr. @ Bollamy Rd

Date: 12-19-17

Sampler: P O'Connor

100 m: Latitude	
Longitude	
0 m: Latitude	
Longitude	

Substrates: Code key, draw proportionate habitat abundance.		%
☑	Snags	1
☒	Roots/undercut banks	2
0	Leaf Packs (or mats)	3
✓	Aquatic Macrophytes	
☐	Rock	1
☐		
☐	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:

<2 M of Macrophytes was observed while doing the LVS? YES or NO

Snags

Root

78147 JP 12/21/17

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

SAMPLING AGENCY: NE ROC		STORET STATION NUMBER: 21030126	DATE (MM/DD/YY): 12-19-17	RECEIVING BODY OF WATER: Mill Cr. Sink
REMARKS:	COUNTY: Alachua	LOCATION: Mill Cr. @ Bellamy Rd		FIELD ID/NAME: GINED6051219201

Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components **Substrate Diversity** 18	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 9	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 14	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 14 Primary Score 55	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** 20	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 5 Left Bank 5	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 Right Bank 10 Left Bank 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 70	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

125 **TOTAL SCORE**

Date: 12-19-17	Analyst: P O'Connor	Signature: Patrick O'Connor

Advanced Environmental Laboratories, Inc.
Florida's Largest Laboratory Network

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☐ Tampa: 9610 Princess Palm Ave. • Tampa, FL 33619 • 813.630.9616 • Fax 813.630.4327

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Client Name: FDEP
Address: 8800 Baymeadows Way W. Jax Fl. 32256
Phone: 904 256 1700
FAX:
Contact:
Sampled By: Jeremy Parrish
Turn Around Time: ☒ STANDARD ☐ RUSH
AEL Profile #:

Project Name: SVW. SCF
Project Number: 2017-12-18-11
PO Number:
FDEP Facility No:
FDEP Facility Address:
Special Instructions:
☐ ADaPT ☐ EQuIS ☐ Other

SAMPLE ID	SAMPLE DESCRIPTION	Grab Comp	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. COUNT	ANALYSIS REQUIRED: BOTTLE SIZE & TYPE	ANALYSIS REQUIRED	LABORATORY I.D. NUMBER
							Preservation	Ecoli	
							Field-Filtered?		
61NE0605 12192017	Mill creek	G	12/19/17	920	SW	1		X	

Matrix Code: WW = wastewater SW = surface water GW = ground water DW = drinking water O = oil A = air SO = soil SL = sludge
Preservation Code: I = ice H=(HCl) S = (H2SO4) N = (HNO3) T = (Sodium Thiosulfate)

Received on Ice ☒ Yes ☐ No ☒ Temp taken from sample ☐ Temp from blank ☐ Where required, pH checked
Temp. when received (observed) 4.0 °C Temp. when received (corrected) °C

DCN: AD-051 Form last revised 06/19/2017
Device used for measuring Temp by unique identifier (circle IR temp gun used) J: 9A G: (LT-1) LT-2 T: 10A A: 3A M: 3A S: 1V F: 1A

	Relinquished by:	Date	Time	Received by:	Date	Time
1		12/19/17	1245		12/19/17	1245
2						
3						
4						

FOR DRINKING WATER USE:
(When PWS Information not otherwise supplied) PWS ID:
Contact Person: Phone :
Supplier of Water:
Site-Address: