



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2020

Meter Passed End
of Day CCV
Yes / No

WIN Station Name: Lake Lafayette Drain Weems Drain Lake Lafayette Date: 01/02/2023
(mm/dd/yyyy)

WIN/ Field ID: G1TLHR0479 0194 WBID: 7561 Latitude: 30.4544
(Decimal Degrees)

County: Leon ORG ID: 21FLTLHR Longitude: -84.2204
(Decimal Degrees)

Receiving Body of Water: Lake Lafayette ~~RQ-2020~~ RQ-2023- 01-09-50

Sampling Team Members	WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
<u>Don Woods</u>	<u>X</u>	<u>X</u>			
<u>Sade Burchett</u>		<u>X</u>	<u>X</u>	<u>X</u>	

Sampling Equipment	
☒ Sample Container	☐ Van Dorn
☐ Syringe	☐ Pole
☐ Dipper	☐ Other _____
Depth Measured with <u>VSI</u>	
Equipment ID <u>154177</u>	
Collection Method	
☒ Wading	☐ Canoe/Kayak
☐ From Shore	☐ Electric Motor
☐ Other _____	☐ Gasoline Motor

Water Level: Dry/ Pooled/ Low / Normal / High / Flooded		Meter ID# <u>154177</u>	
Photos: Yes / No	Flow: No Flow / Flowing / NA	Tide: Rising/ Falling/ Slack/ <u>NA</u>	Tide Times: High Low
Biological Samples Collected: None HA SCI RPS Algae ID LVS LVI Other:			
SBIO ID Numbers:	SBIO-ID:	HA-ID:	RPS-ID:
Macrophyte-ID:		LIMS#:	

Notes:

Duplicate Sample	
Time Zone: EST CEN Time: _____	Field ID: _____ (WIN ID_DUP)
WIN DMT Activity ID: _____	

Blank	
Time Zone: EST CEN Time: _____	Field ID: _____ (Blank Type_DDMMYYYY)
DI Source: _____	Location: _____
☐ Field Blank ☐ Equipment Blank ☐ Field Cleaned Equipment Blank	Equipment ID: _____

LIMS EVENT ID: _____ WIN Import ID: _____

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

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

SBIO created 2/9
station visit 86082



RQ-2020- RQ-2023-01-09-50

Customer: DEP-TLHR

Project ID: SMP

 Collected By: Woods/Buckett
 Field Report Prepared By: Jon Woods
 Sampling Agency: 21FLTLHR

WIN ID / Field ID →

KIT: N/E/M/T/W-PSNP-TQ/W-TR-SQ-R

WBID: 756I

Location



G1TLHR0194

WeemsDrainLakelafayette

Comments:

Matrix: ☒ Fresh ☐ Marine

(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 (PPT)
2/2/23	1055 EST CST	9.97	127.8	9.1	6.96	0.2 0.2	0.2 0.4 ☐ VOB (S)	0.2 0.4	129.6	0.06

Cental Lab please use top row for login purposes

EST / CST

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 ☒ H2SO4*	☒ <2	1	A
	Lot # 2299040 Exp: 11/4/23				
Metals (P-500ML)	☒ W-ICPMS ☒ W-ICP ☒ W-HARD	☒ Ice ☒ HNO3*	☒ <2	1	A
	Lot # 2126030 Exp: 6/2/23				
Filtered Nutrients (P125ML)	☐ W-PO4-F ☐ Field Filtered 0.45 µm Filter	☐ Ice			
	Filter Lot # Syringe Lot #				
Chlorophyll (BP-1L)	☒ CHLSUITE-W	☒ Ice		1	A
Physical/Aggregate (Fresh) (P-1L)	☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-CHC / W-COLOR / W-SO4-IC / W-TDS	☒ 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			
Periphyton (PT-50ML)	☒ ALGAE-ID	☒ Ice		1	B
Microbiology (Contract Lab Bottle)	☒ E Coli ☐ F Coli ☐ Enterococci	☒ Ice		1	A
	☐ Contract Lab				
Molecular (QPCR-P-500ML)	☐ PCR-HF183 ☐ PCR-BacR ☐ PCR-DG3 ☐ PCR-GULL2 ☐ PCR-GFD ☐ See Notes	☐ 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)	☒ Ice		2	A

Name:

Signature:

Date:

Jon Woods

Jon Woods

2/2/23

*2.0 ml of Preservative used unless noted otherwise.

**MCAA: Monochloroacetic acid buffer solution

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

SAMPLING AGENCY: 21 FETTER		STORET STATION NUMBER: 6164R0194	DATE (MM/DD/YY): 2/2/23	RECEIVING BODY OF WATER: Lake Lafayette
REMARKS:	COUNTY: Leon	LOCATION: Lake Lafayette Drain		FIELD ID/NAME:

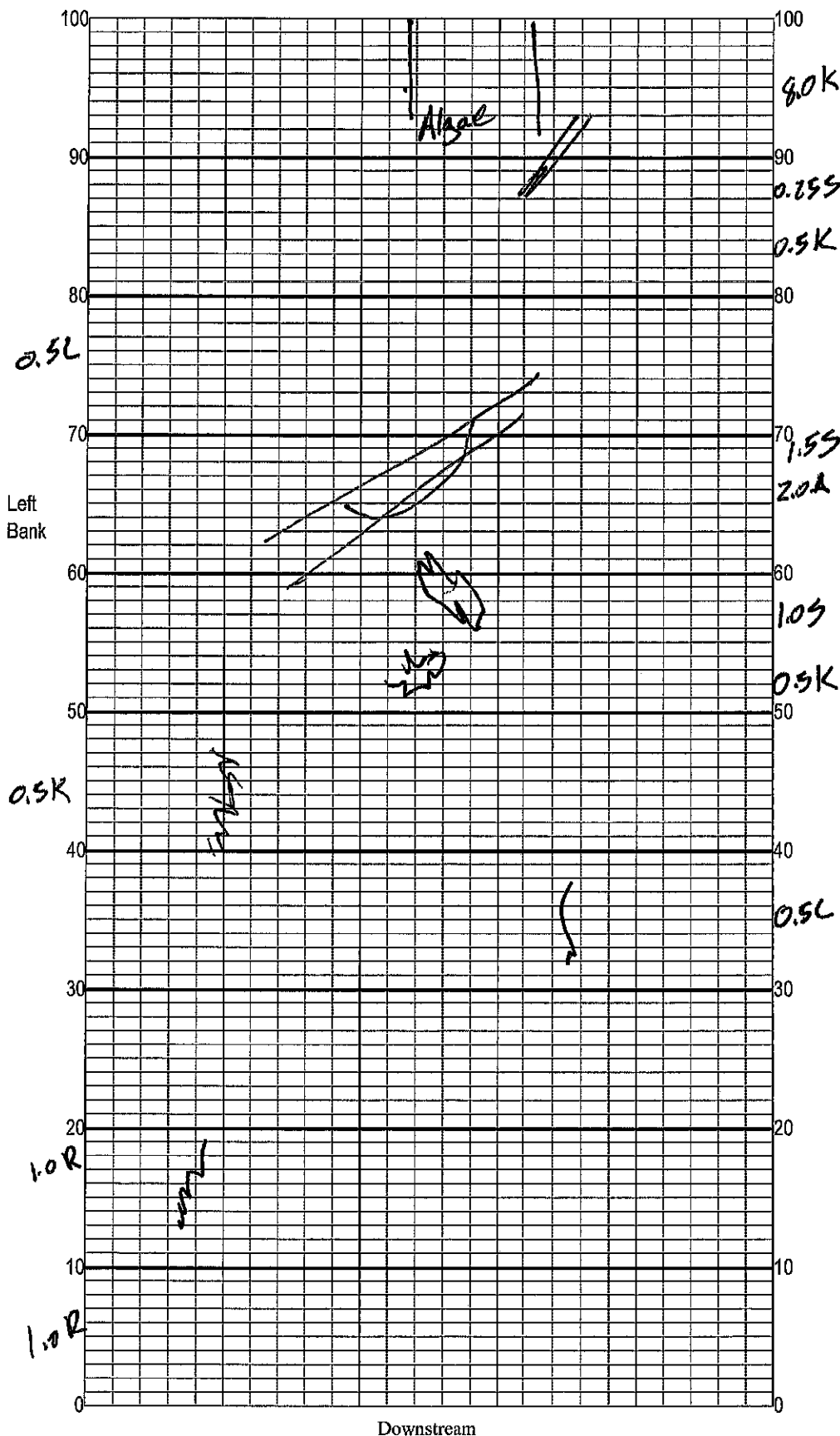
Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components	Four or more major productive habitats present [snags, tree roots, aquatic vegetation, leaf packs (partially decayed), rock]	Three major productive habitats present. Adequate habitat. Some substrates may be new fall (fresh leaves or snags)	Two major productive habitats present. Less than desirable habitat, frequently disturbed or removed	One or less major productive habitat. Lack of habitat is obvious, substrates unstable or smothered
Substrate Diversity 16	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1
Substrate Availability 4	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 7 ----- Primary Score 41	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	Expected sinuosity given the stream width. No evidence of dredging or artificial straightening. No spoil banks.	Good sinuosity within old channelized area. Evidence of dredging in the past (>25 yrs) but mostly recovered.	Straightened with trapezoidal cross section, but has a small degree of sinuosity developed within channelized area.	Straightened or engineered by dredging, has trapezoidal or box cut cross section, lacks required pools. May have spoil banks.
Artificial Channelization 13	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1
Bank Stability	Bankfull > 60% of bank height. Slope of bank ≤ 60° from bankfull to top of bank. Bankfull is within or above the root zone with few raw, eroded areas.	Only meets 2 of the 3 requirements for optimal bank stability.	Only meets 1 of the 3 requirements for optimal bank stability.	Bankfull < 60% of bank height. Slope of bank > 60°. Bankfull is below the root zone with raw, eroded areas.
Right Bank 3 Left Bank 3	10 9	8 7 6	5 4	3 2 1
Riparian Buffer Zone Width	Width of vegetation greater than 18 m	Width of vegetation >12 to 18m	Width of vegetation 6 to 12 m. human activities close to system	Less than 6 m of buffer zone due to intensive human activities
Right Bank 10 Left Bank 8	10 9	8 7 6	5 4	3 2 1
Riparian Zone Vegetation Quality	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.	>50% to 80% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). Some disruption in community observed.	25% to 50% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). Disruption obvious.	Less than 25% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions).
Right Bank 7 Left Bank 7 ----- Secondary Score 51	10 9	8 7 6	5 4	3 2 1

92

TOTAL SCORE

Date: 2/2/23	Analyst: Woods	Signature: 
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DEP Form FD 9000-4 Stream/River Habitat Assessment Sketch Sheet



Location: GITCHR0194

Date: 2/2/23

Sampler: Don Woods

100 m: Latitude _____
Longitude _____

0 m: Latitude _____
Longitude _____

Substrates: Code key, draw proportionate habitat abundance. %

S Snags 0.69

R Roots/undercut banks 0.5

L Leaf Packs (or mats) 0.25

A Aquatic Macrophytes 0.5

K Rock 2.4

Clay 95.66

Pools total # observed = _____
range expected = _____

Average width 4 m

Average depth 0.4 m

Velocity measured at 80 meter mark.

WQ & chemistry taken at 80 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:

9.5 K
2.75 S
2.0 A
2.0 R
1.0 L

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

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: <u>Lake Lafayette Drain</u>					County: <u>Leon</u>		Date: <u>2/2/23</u>		Investigators: <u>Woods/Burchett</u>	
									STORET Station Number: <u>G-1TLHR0194</u>	

Transect t (m)	Point 1=right 9=left	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover	Transect t (m)	Point 1=right 9=left	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover
0	1	N			60	1	N		
	2	N				2	N		
	3	N				3	N		
	4	3				4	N		
	5	6		26		5	6		
	6	N				6	6		48
	7	N				7	N		
	8	3				8	N		
	9	N				9	N		
10	1	N			70	1	N		
	2	N				2	N		
	3	N				3	N		
	4	N				4	6		
	5	5		40		5	N		
	6	N				6	N		48
	7	N				7	N		
	8	6				8	N		
	9	N				9	N		
20	1	N			80	1	N		
	2	N				2	N		
	3	N				3	N		
	4	N				4	N		
	5	5		10		5	6		
	6	5				6	N		22
	7	6				7	N		
	8	N				8	N		
	9	N				9	N		
30	1	N			90	1	N		
	2	N				2	N		
	3	N				3	N		
	4	N				4	N		
	5	5		14		5	6		
	6	6				6	N		12
	7	N				7	N		
	8	N				8	6		
	9	N				9	6		
40	1	N			100	1	N		
	2	5				2	5		
	3	6				3	5		
	4	N				4	5		
	5	6		32		5	6		
	6	N				6	6		4
	7	N				7	6		
	8	5				8	6		
	9	N				9	6		
50	1	N				1	N		
	2	6				2	5		
	3	6				3	5		
	4	6				4	5		
	5	6		50		5	6		
	6	6				6	6		
	7	6				7	6		
	8	6				8	6		
	9	6				9	6		

Secchi depth	0.4
Estimated?	N

# points ranked 4-6	40
total points assessed	99
% points ranked 4-6	40.4

Check accompanying data collected at same site/date.	
Algal mat sample	✓
Linear Veg Survey	✓
Habitat Assessment	✓
SCI/Biorecon	
Water sample	✓
RQ-2023-01-09-50	

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%.

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

Waterbody: <u>Lake Lafayette Drain</u>	Date: <u>2/2/23</u>	County: <u>Leon</u>	Storet Number: <u>617CHR094</u>
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Analyst: <u>San Wood's</u>	Signature: <u>[Signature]</u>
Comments:	

Comments: 

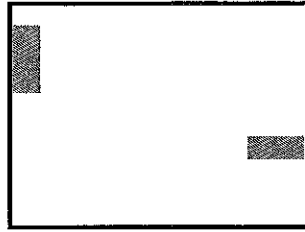
Instructions: Note taxa growing in the water with a checkmark if present, "D" if dominant, and "C" if codominant (dominance only if 1 m² of taxa present). Note in the boxes below if no dominant are selected, and note total macrophyte abundance rank for each section. Only the most common taxa are listed, so use blank spaces for additional taxa names.

[illegible]

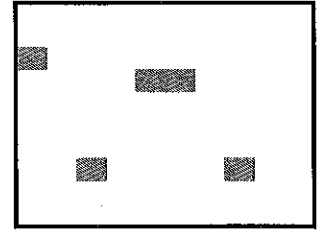
FDEP FORM FD 9000-32 LINEAR VEGETATION SURVEY FIELD SHEET

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

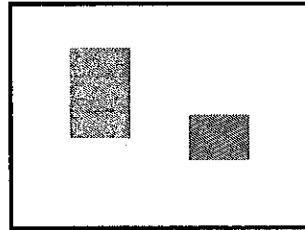
5% Macrophyte Coverage



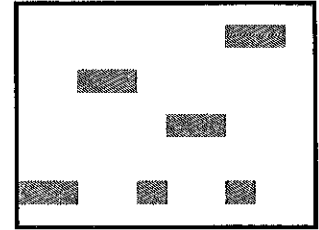
5% Macrophyte Coverage



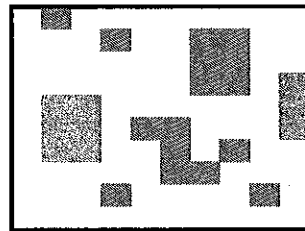
10% Macrophyte Coverage



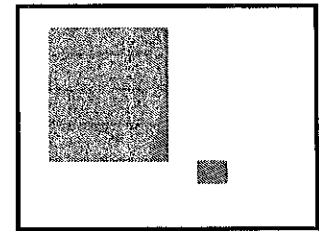
10% Macrophyte Coverage



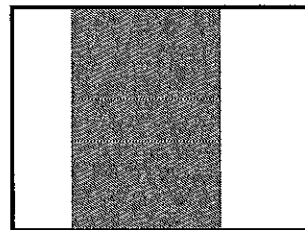
25% Macrophyte Coverage



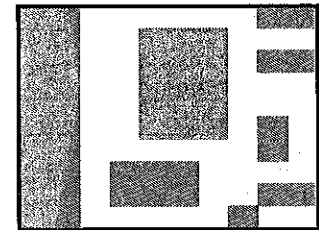
25% Macrophyte Coverage



50% Macrophyte Coverage



50% Macrophyte Coverage



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

SAMPLE ID 6-ITLHR0194 ORG ID _____ LATITUDE _____
 COUNTY Leon STORET # 6-ITLHR0194 LONGITUDE _____
 DATE 2/2/23 TIME 1055 SAMPLING AGENCY IFLTLHR
 SITE NAME Lake Lafayette Drain
 FIELD ID/NAME 6-ITLHR0194 RECEIVING BODY OF WATER Lake Lafayette

RIPARIAN ZONE / STREAM FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category): Forest/Natural <u>5</u> Silviculture <u>5</u> Field/Pasture _____ Agricultural _____ Residential <u>40</u> Commercial <u>40</u> Industry <u>10</u> Other (Specify) _____							Landscape Development Intensity Index (LDI) _____
Local Watershed Erosion (select one): ☐ None ☐ Slight ☐ Moderate ☒ Heavy				Typical Width (m) Depth (m)/Velocity (m/sec) Transect <u>4</u> m wide			
Local Watershed NPS Pollution: ☐ No evidence ☐ Slight ☐ Moderate ☒ Heavy							
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank: <u>12-18</u> Right Bank: <u>7-18</u>		Hydrologic Modification Score (per FT 3101) _____		<u>0.20</u> m/s <u>0.20</u> m/s <u>0.10</u> m/s			
High Water Mark: <u>1.3</u> + <u>0.4</u> = <u>1.7</u> (m) (above present water level) (present depth) (above bed)		Artificially Impounded ☒ Yes ☐ No		<u>0.2</u> m deep <u>0.4</u> m deep <u>0.2</u> 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 ☐
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SUBSTRATE TYPE

Assessment Tool: ☐ SCI ☒ RPS ☒ LVS

	% Coverage	INVERT # Times Sampled	PERI # Times Sampled
Woody Debris (Snags)	<u>0.67</u>		
Undercut Banks / Roots	<u>0.5</u>		
Leaf Packs or Mat	<u>0.25</u>		
Aquatic Vegetation	<u>0.5</u>		
Rock or Shell Rubble..	<u>2.4</u>		
Sand			
Mud / Muck / Silt			
Other	<u>95.66</u>		
Other			

WATER QUALITY

	Depth (M)	Temp. (°C)	pH (SU)	D.O. (MG/L)	D.O. Sat (%)	Cond. (UMHO/CM)	Salinity (PPT)	SECCHI (M)
Top:	<u>0.2</u>	<u>19.1</u>	<u>6.96</u>	<u>9.97</u>	<u>107.8</u>	<u>129.6</u>	<u>0.06</u>	<u>0.4</u>
Mid:								☒ VOB
Bottom:								
Meter ID:	<u>154177</u>							<u>0.4</u>

Water Odors Normal ☒ Petroleum ☐ Sewage ☐ Chemical ☐ Other ☐	Water Surface Oils Normal ☒ Sheen ☐ Globbs ☐ 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:

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

SAMPLING TEAM

Woods/Burgett

SIGNATURE:

[Signature]

DATE:

2/2/23

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