

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

SAMPLING AGENCY: <u>FDEP SOPUC</u>		STORET STATION NUMBER: <u>G1SD0123</u>	DATE (MM/DD/YY): <u>02/16/22</u>	RECEIVING BODY OF WATER: <u>MULLUCK CREEK</u>
REMARKS: _____	COUNTY: <u>LEE</u>	LOCATION: <u>10-MILE CANAL BETWEEN WINKER & CAGUAL</u>	FIELD ID/NAME: _____	

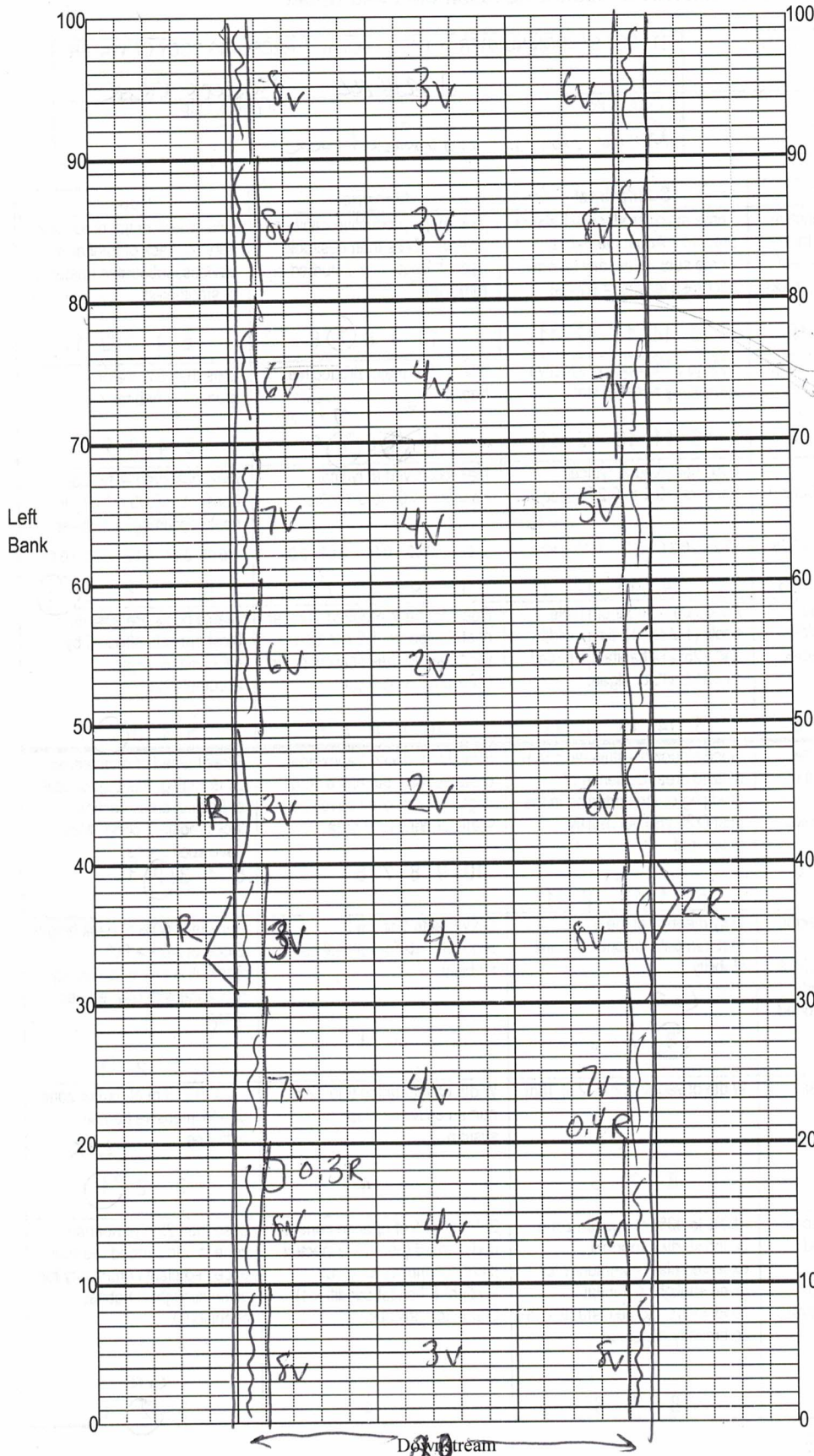
Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components Substrate Diversity <u>1</u>	Four or more major productive habitats present (snags, tree roots, aquatic vegetation, leaf packs (partially decayed), rock) 20 19 18 17 16	Three major productive habitats present. Adequate habitat. 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 <u>7</u> 6	One or less major productive habitat. Lack of habitat is obvious, substrates unstable or smothered 5 4 3 2 1
Substrate Availability <u>1</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 <u>30</u> 10 <u>9</u> 8 <u>7</u> 6	Less than 5% major productive habitat 5 4 3 2 1
Water Velocity <u>1</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 spate occurring: > 1 m/sec <0.05 0.04 0.03 0.01 <0.01 5 4 3 2 <u>1</u>
Habitat Smothering <u>2</u> ----- Primary Score <u>17</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. 5 4 3 <u>2</u> 1
Secondary Habitat Components Artificial Channelization <u>2</u>	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 <u>2</u> 1
Bank Stability Right Bank <u>8</u> Left Bank <u>8</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 9	Only meets 2 of the 3 requirements for optimal bank stability. <u>L+R</u> <u>8</u> 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 <u>1</u> Left Bank <u>1</u>	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 <u>L+R</u> 3 2 <u>1</u>
Riparian Zone Vegetation Quality Right Bank <u>2</u> Left Bank <u>2</u> ----- Secondary Score <u>24</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. 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). <u>L+R</u> 3 <u>2</u> 1

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TOTAL SCORE

Date: <u>2/16/22</u>	Analyst: <u>JOHN BARZANET</u>	Signature: 
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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: 10-MILE CANAL BETWEEN WINKLER + COLUMBIA
Date: 2/16/22
Sampler: JOHN BORRINGTON

100 m: Latitude	<u>26.6008032</u>
Longitude	<u>-81.8556943</u>
0 m: Latitude	<u>26.599862</u>
Longitude	<u>-81.855709</u>
Substrates: Code key, draw proportionate habitat abundance. %	
☐	Snags
☒	Roots/undercut banks <u>0.2</u>
☐	Leaf Packs (or mats)
☒	Aquatic Macrophytes <u>9.1</u>
☐	
☐	
☒	Pools total # observed = <u>0</u> # range expected = <u>1-2</u>
Average width <u>20</u> m	
Average depth <u>1.3</u> m	
Velocity measured at <u>0.100</u> meter mark.	
WQ & chemistry taken at <u>0</u> meter mark.	
Habitat Smothering: <u>HEAVY ALGAE</u> Note areas (on map) where sand or silt is smothering substrates, limiting habitability.	
Bank Stability: <u>++</u> - <u>NO PROBLEMS</u> Note areas (on map) with unstable, eroding banks. <u>ENGINEERED BANKS</u>	
Riparian Buffer Width: <u>NONE</u> Note areas (on map) where natural vegetation is altered or eliminated.	

Plants observed / other notes:

NUPHAR, CARRA ON BOTTOM
POTAMOGETON ILL.
FEW TYPHIA + ELEODORA INTERSTINCTA

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

SAMPLE ID _____ ORG ID 8052 LATITUDE _____
 COUNTY LEE STORET # _____ LONGITUDE _____
 DATE 2/16/22 TIME 1127 SAMPLING AGENCY FDEP SURGE
 SITE NAME 10-MILE CANAL BETWEEN WINKLER & COLONIAL
 FIELD ID/NAME _____ RECEIVING BODY OF WATER MULLEN CREEK

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 ☐ Moderate ☐ Heavy Local Watershed NPS Pollution: ☐ No evidence ☐ Slight ☒ Moderate ☐ Heavy								Typical Width (m) Depth (m)/Velocity (m/sec) Transect 20 m wide _____ m/s <u>0.1</u> m/s _____ m/s _____ m deep <u>1.3</u> m deep <u>0.2</u> m deep
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank: <u>0</u> Right Bank: <u>0</u>				Hydrologic Modification Score (per FT 3101) ☐				
High Water Mark: <u>0</u> + <u>1.3</u> = <u>1.3</u> (m) (above present water level) (present depth) (above bed)				Artificially Impounded ☒ Yes ☐ No				
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
☐ LCI ☐ BioRecon ☒ HA
 INVERT PERI
 % # Times # Times
 Coverage Sampled Sampled

Woody Debris (Snags)			
Undercut Banks / Roots			
Leaf Packs or Mat			
Aquatic Vegetation	<u>9.1</u>		
Rock or Shell Rubble..	<u>0.2</u>		
Sand.....			
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: <u>0.3</u>	<u>18.6</u>	<u>7.77</u>	<u>8.82</u>	<u>94.5</u>	<u>939</u>	<u>0.46</u>	<u>1.3</u>
Mid: _____							☒ VOB
Bottom: _____							TOTAL DEPTH
Meter ID: <u>THE ONE</u>							<u>1.3</u>

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

Water Sample Taken? ☐ Yes ☒ No
 Sample Preserved? ☐ Yes ☐ No
 Lot Number: _____ Exp: _____

Algae Sample Taken? ☐ Yes ☒ No
 Sample Preserved? ☐ Yes ☐ No
 Lot Number: _____ Exp: _____

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

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

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) ☒ CANAL

AMBIENT FIELD CONDITIONS / NOTES:

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

SAMPLING TEAM

JOHN BREWSTER, GARY SUREK

SIGNATURE:

[Signature]

DATE:

2/16/22