

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

SAMPLE ID _____ ORG ID _____ LATITUDE 30° 28' 36.5" N
 COUNTY Jefferson STORET # 22030061 LONGITUDE 84° 06' 25.4" W
 DATE 4/29/21 TIME 10:45 AM SAMPLING AGENCY AEGAS - FDEP
 SITE NAME Lloyd Creek
 FIELD ID/NAME Lloyd Creek Ref RECEIVING BODY OF WATER Lake Microsukee

RIPARIAN ZONE / STREAM FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category): Forest/Natural ☒ 100% 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 m wide m/s m/s m/s	
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank: Right Bank:				Hydrologic Modification Score (per FT 3101)			
High Water Mark: + = (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 ☐																																										
SUBSTRATE TYPE Assessment Tool: ☒ SCI ☒ RPS ☐ LVS ☐ LCI ☐ BioRecon			WATER QUALITY <table border="1"> <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><u>1</u></td> <td><u>19.6</u></td> <td><u>6.98</u></td> <td><u>8.24</u></td> <td><u>92.4</u></td> <td><u>64.3</u></td> <td></td> <td></td> </tr> <tr> <td>Mid:</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>☐ VOB</td> </tr> <tr> <td>Bottom:</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>							Depth (M)	Temp. (°C)	pH (SU)	D.O. (MG/L)	D.O. Sat (%)	Cond. (UMHO/CM)	Salinity (PPT)	SECCHI (M)	Top:	<u>1</u>	<u>19.6</u>	<u>6.98</u>	<u>8.24</u>	<u>92.4</u>	<u>64.3</u>			Mid:								☐ VOB	Bottom:												
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			Water Sample Taken? ☒ Yes ☐ No Sample Preserved? ☒ Yes ☐ No Lot Number: _____ Exp: _____			Color Tannic ☒ Green (Algae) ☐ Clear ☐ Other (Specify) ☐																																										
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SAMPLING TEAM <u>Ashley O'Neal / Jennifer Piacente</u>			SIGNATURE: <u>Jennifer Piacente</u>			DATE: <u>4/29/2021</u>																																										

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

SAMPLING AGENCY: FDEP-AEQAS		STORET STATION NUMBER: 22030061	DATE (MM/DD/YY): 4/29/21	RECEIVING BODY OF WATER: Lake Micoukee
REMARKS:	COUNTY: Jefferson	LOCATION: Lloyd Creek	FIELD ID/NAME: Lloyd Creek Ref JP	

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 8	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 ^{JP} 2 1
Water Velocity 1.5	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 13 ----- Primary Score 40	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. 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 6	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. 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 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

110

TOTAL SCORE

Date: 4/29/21	Analyst: A. O'Neal / J. Piacente	Signature: 
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DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: Lloyd Creek County: Jefferson Date: 4/29/21 Investigators: A. O'Neal / J. Piacente

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: 22030201

Transect (m)	Point	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover	Transect (m)	Point	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover
0	1	X			60	1	X		
	2	X				2	X		
	3	X				3	X		
	4	X				4	X		
	5	X		32%		5	X		76
	6	X				6	X		
	7	X				7	X		
	8	X				8	X		
	9	X				9	X		
10	1	X			70	1	X		
	2	X				2	X		
	3	X				3	X		
	4	X				4	X		
	5	X		1		5	X		96
	6	X				6	X		
	7	X				7	X		
	8	X				8	X		
	9	X				9	X		
20	1	X			80	1	X		
	2	X				2	X		
	3	X				3	X		
	4	X				4	X		
	5	X		1		5	X		96
	6	X				6	X		
	7	X				7	X		
	8	X				8	X		
	9	X				9	X		
30	1	X			90	1	X		
	2	X				2	X		
	3	X				3	X		
	4	X				4	X		
	5	X		1		5	X		96
	6	X				6	X		
	7	X				7	X		
	8	X				8	X		
	9	X				9	X		
40	1	X			100	1	X		
	2	X				2	X		
	3	X				3	X		
	4	X				4	X		
	5	X		71		5	X		
	6	X				6	X		
	7	X				7	X		
	8	X				8	X		
	9	X				9	X		
50	1	X				1	X		
	2	X				2	X		
	3	X				3	X		
	4	X				4	X		
	5	X		72		5	X		
	6	X				6	X		
	7	X				7	X		
	8	X				8	X		
	9	X				9	X		

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%.

Secchi depth
Estimated? 39

points ranked 4-6
total points assessed 96
% points ranked 4-6

Check accompanying data collected at same site/date.
Algal mat sample
Linear Veg Survey
Habitat Assessment ☒
SCI/Biorecon ☒
Water sample ☒
RQ-2021-04-26-24

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

Some algae between transects 1 & 10

unable to reach transect 10 for densiometer

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

Location: Lloyd Creek
 Date: 4/29/21
 Sampler: J. Piacente

100 m: Latitude _____
 Longitude _____

0 m: Latitude _____
 Longitude _____

Substrates: Code key, draw proportionate habitat abundance. %

	Snags	2.2%
	Roots/undercut banks	0.786%
	Leaf Packs (or mats)	0.07%
	Aquatic Macrophytes	_____
	<u>Roots</u>	_____
	_____	_____
	Pools	total # observed = <u>12</u> # range expected = _____

Average width 7 m
 Average depth 0.5 m

Velocity measured at 5 meter mark.

WQ & chemistry taken at 5 meter mark.

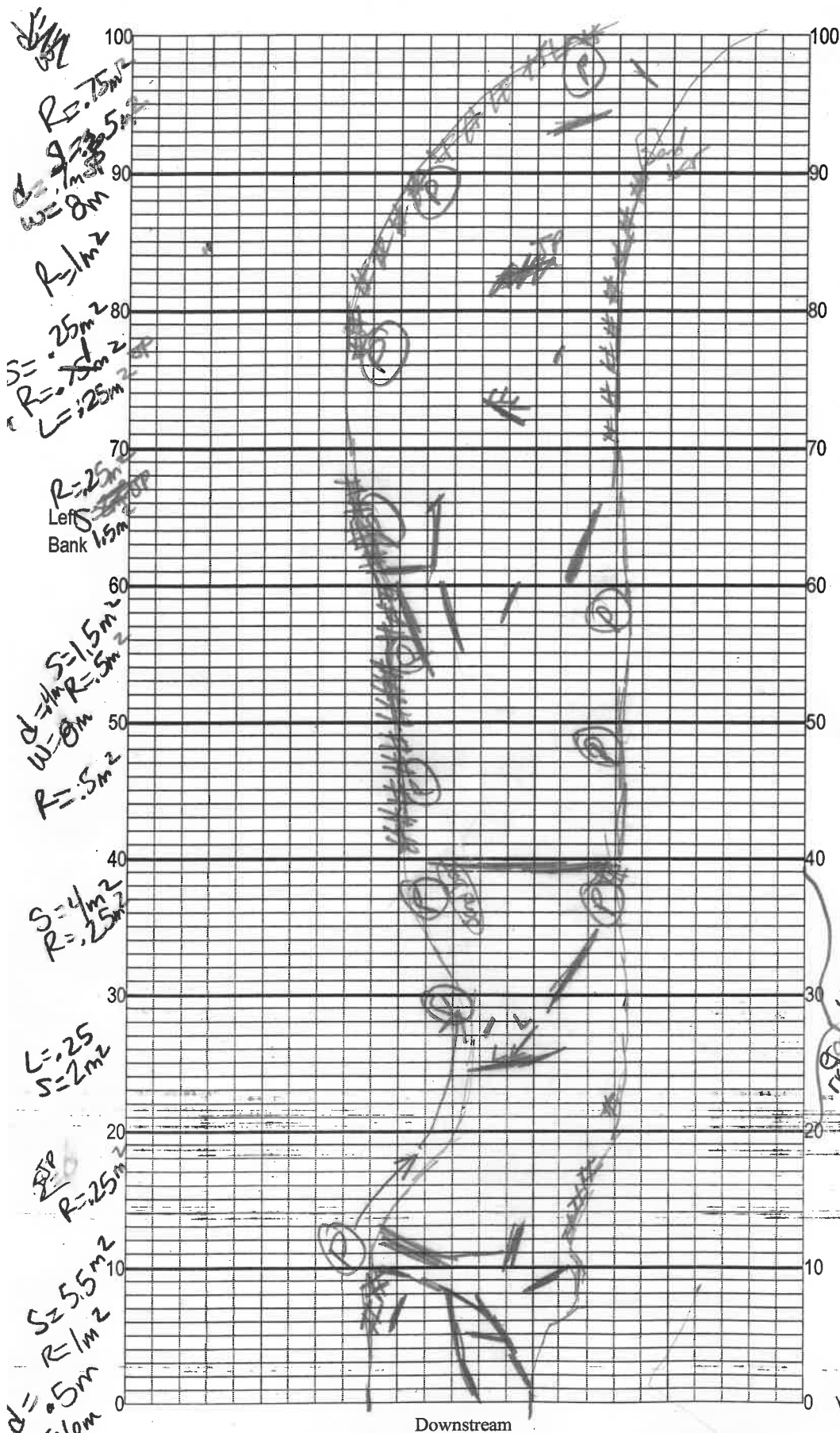
Habitat Smothering:
 Note areas (on map) where sand or silt is smothering substrates, limiting habitability.

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:

SP $C=4.05$
 $V=r=4.345$
 $\rightarrow$ too deep
 Could not access/see habitat
 for 10m - 30m part of
 transect
 $S=15.25m^2$
 $R=5.5m^2$
 $L=.5m^2$
 Total area = 700m^2



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

Page 1 of 3
last revised Jan 25, 2018

Collected By: Ashely O'Neal / Jennifer Parent
Sampling Agency: FIDEP-ABQMS

Jennifer Piacente
EDCP-AEQMAS

Location		Collection (comp begin or grab)		Composite end		Bottle Group(s)	
Field ID	Date	Grab	Date	Central	Date	Time	(See pg 2)
Lloyd Creek	4/29/21	☒	4/29/21				A,B,C
WIN/STORET #	220300601						
Latitude	30°28'36.5"N	☒	19.4	☒	6.98		
Longitude	84°00'25.4"W	☒		☒	.1		
Field ID		☒		☒			
WIN/STORET #							
Latitude		☒		☒			
Longitude		☒		☒			
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