

STATE OF FLORIDA, DEPARTMENT OF ENVIRONMENTAL PROTECTION
STREAM/RIVER HABITAT ASSESSMENT FIELD SHEET

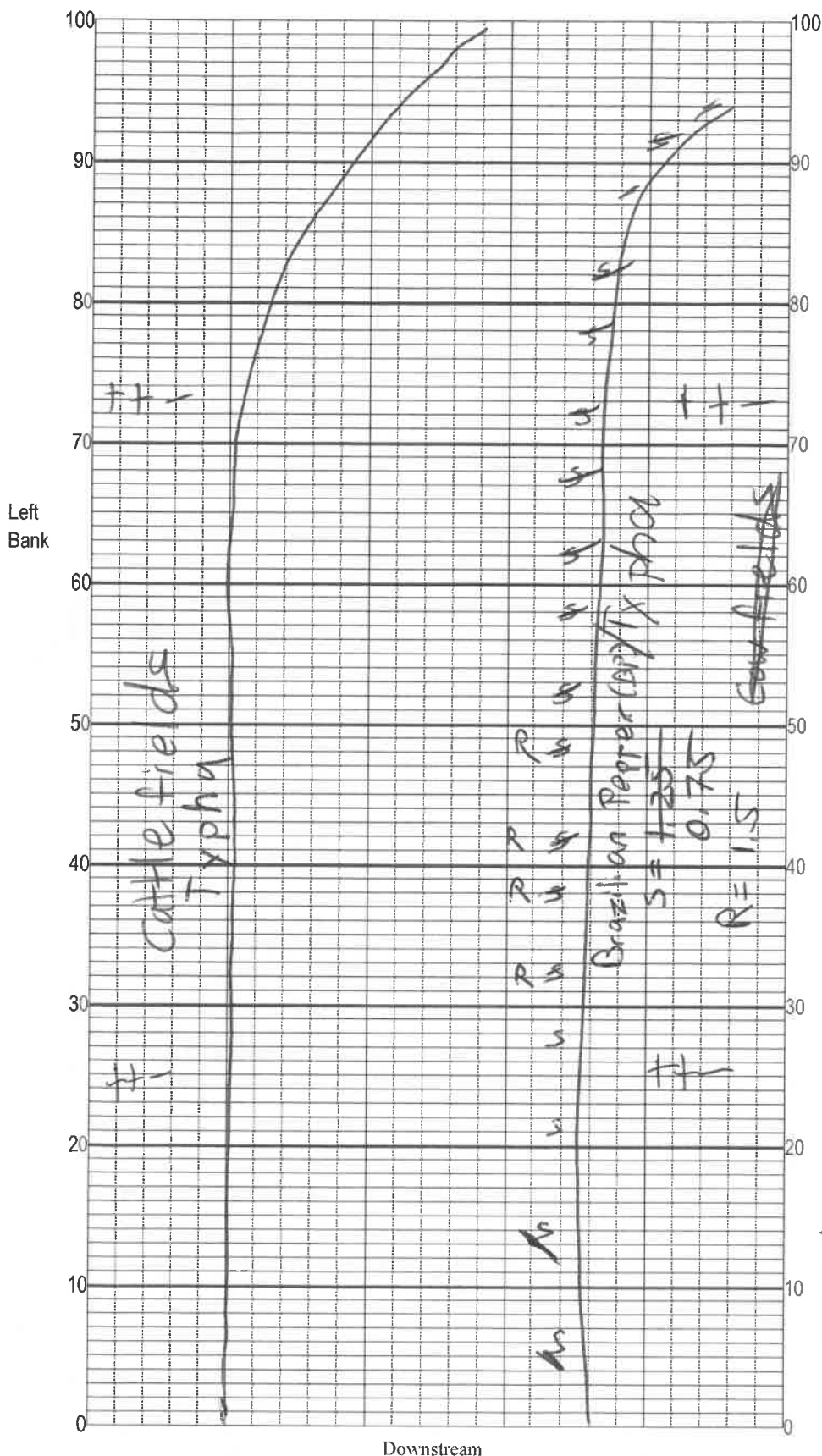
SUBMITTING AGENCY CODE: _____		STORET STATION NUMBER: _____	DATE (MM/DD/YY): <u>10/11/22</u>	RECEIVING BODY OF WATER: <u>Lemka Creek</u>
SUBMITTING AGENCY NAME: _____				
REMARKS: _____	COUNTY: <u>okeechobee</u>	LOCATION: <u>Lemka Creek @ 78</u>	FIELD ID/NAME: <u>615E0026</u>	

Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components	Four or more productive habitats present (snags, tree roots, aquatic vegetation, leaf packs (partially decayed), rock)	Three productive habitats present. Adequate habitat. Some substrates may be new fall (fresh leaves or snags)	Two productive habitats present. Less than desirable habitat, frequently disturbed or removed	One or less productive habitat. Lack of habitat is obvious, substrates unstable or smothered
Substrate Diversity <u>6</u>	20 19 18 17 16	15 14 13 12 11	10 9 8 7 <u>6</u>	5 4 3 2 1
Substrate Availability <u>1</u>	Greater than 30% productive habitat present at site	16% to 30% productive habitat, by aerial extent	6% to 15% productive habitat	Less than 5% productive habitat
	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 <u>1</u>
Water Velocity <u>1</u>	Max. observed at typical transect: > 0.25 m/sec. But < 1 m/sec	Max. observed at typical transect: > 0.1 to 0.25 m/sec	Max. observed at typical transect: 0.05 to 0.1 m/sec	Max. observed at typical transect: < 0.05 m/sec; or spate occurring: > 1 m/sec
	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 <u>1</u>
Habitat Smothering <u>3</u>	Adequate number of pools (1-2 per 12 times width) and <25% of habitats affected by sand or silt accumulation.	Adequate number of pools (1-2 per 12 times width) and >25% of habitats affected by sand or silt accumulation.	Does not have required number of pools (1-2 per 12 times width) and/or has shallow pools (<2 times prevailing depth).	Pools are absent. Most habitats affected by sand or silt accumulation.
Primary Score _____	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 <u>3</u> 2 1
Secondary Habitat Components	Good sinuosity. No evidence of dredging or artificial straightening. No spoil banks. Diversity of depths.	Good sinuosity within old channelized area and a diversity of depths. Evidence of dredging in the past (>10 yrs) but mostly recovered.	Some sinuosity developed within channelized area. Some diversity of depth, but no pools (>2 times prevailing depth) present.	Straightened with spoil banks. Box-cut, monotypic depth with no pools.
Artificial Channelization <u>2</u>	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 <u>2</u> 1
Bank Stability	Bankfull > 60% of bank height. Slope of bank ≤ 60°. 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 <u>6</u> Left Bank <u>6</u>	10 9	8 7 <u>6</u>	5 4	3 2 1
Riparian Buffer Zone Width	Width of vegetation greater than 18 m	Width of vegetation >12 to 18 m	Width of vegetation 6 to 12 m. human activities still close to system	Less than 6 m of buffer zone due to intensive human activities
Right Bank <u>10</u> Left Bank <u>10</u>	<u>10</u> 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, trees, understory shrubs, or non-woody macrophytes). 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 is undisturbed (normal, expected plant community for given sunlight & habitat conditions). Disruption obvious.	Less than 25% of riparian is undisturbed (normal, expected plant community for given sunlight & habitat conditions).
Right Bank <u>4</u> Left Bank <u>2</u>	10 9	8 7 6	5 <u>4</u>	3 <u>2</u> 1
Secondary Score _____				

51 TOTAL SCORE

Date: <u>10/11/22</u>	Analyst: <u>Andrew Luering</u> <u>Jordan Skaggs</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: 6ISE0026

Date: 10/11/22

Sampler: AL / JS

100 m: Latitude 27.187969
Longitude -80.852924

0 m: Latitude 27.187588
Longitude -80.852027

Substrates: Code key, draw proportionate habitat abundance. %

☐ S Snags 41%

☐ R Roots/undercut banks 0.01

☐ L Leaf Packs (or mats) _____

☐ A Aquatic Macrophytes _____

☐ _____

☐ _____

☐ Pools total # observed = 0
range expected = 1

Average width 15 m

Average depth 0.9 m

Velocity measured at 100 meter mark.

WQ & chemistry taken at 100 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:

Roo Snags barely thick enough. Mostly BP branches
Roots consisted of Psidium roots.

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

SAMPLE ID _____ ORG ID 21FLWPD LATITUDE 27.851919 27.187367
COUNTY Okeechobee STORET # _____ LONGITUDE -80.851919
DATE 10/11/22 TIME _____ SAMPLING AGENCY SERO C FDEP
SITE NAME Lemkin Creek @ 78
FIELD ID/NAME 6ISE0026 RECEIVING BODY OF WATER Lemkin Creek

RIPARIAN ZONE / STREAM FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category): Forest/Natural ☐ Silviculture ☐ Field/Pasture ☒ <u>100</u> Agricultural ☐ Residential ☐ Commercial ☐ Industry ☐ Other (Specify) ☐								Landscape Development Intensity Index (LDI) <u>3.41</u>	
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 <u>15</u> m wide ☐ m/s <u>40.01</u> m/s ☐ m/s ☐ m deep <u>0.9</u> m deep ☐ m deep			
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank: <u>>12</u> Right Bank: <u>>12</u>				Hydrologic Modification Score (per FT 3101) <u>65-6</u>					
High Water Mark: <u>0.9</u> + <u>0.9</u> = <u>0.9</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

	% Coverage	INVERT # Times Sampled	PERI # Times Sampled
Woody Debris (Snags)	☐	☐	☐
Undercut Banks / Roots	☐	☐	☐
Leaf Packs or Mat	☐	☐	☐
Aquatic Vegetation	☐	☐	☐
Rock or Shell Rubble..	☐	☐	☐
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>26.5</u>	<u>7.14</u>	<u>4.3</u>	<u>53.8</u>	<u>1263</u>	<u>0.63</u>	<u>0.8</u>
Mid:	☐	☐	☐	☐	☐	☐	☐	☐
Bottom:	☐	☐	☐	☐	☐	☐	☐	☐
Meter ID:	☐							<u>0.9</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 ☐
Globs ☐ 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) ☐

AMBIENT FIELD CONDITIONS / NOTES:

Little to no flow

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

SAMPLING TEAM

Andrew Luering
Jordan Skaggs

SIGNATURE :

DATE :

10/11/22

Waterbody: Lemmon Creek	Date: 10/11/22	County: Okechobee	Store Number:
Analyst: ALIJS	Signature:		

Instructions: Note taxa growing in the water with a checkmark if present, "D" if dominant, and "C" if codominant (dominance only if 1m² 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.

Revision Date: January 2017

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: Lemkin Creek County: Okeechobee Date: 10/11/22 Investigators: AL/JS

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	N	✓			2	N	✓	
	3	N	✓			3	N	✓	
	4	N	✓			4	N	✓	
	5	N	✓	0		5	N	✓	0
	6	N	✓			6	N	✓	
	7	N	✓			7	N	✓	
	8	N	✓			8	N	✓	
	9	N	✓			9	N	✓	
10	1				70	1			
	2					2			
	3					3			
	4					4			
	5					5			
	6					6			
	7					7			
	8					8			
	9					9			
20	1				80	1			
	2					2			
	3					3			
	4					4			
	5					5			
	6					6			
	7					7			
	8					8			
	9					9			
30	1				90	1			
	2					2			
	3					3			
	4					4			
	5					5			
	6					6			
	7					7			
	8					8			
	9					9			
40	1				100	1			
	2					2			
	3					3			
	4					4			
	5					5			
	6					6			
	7					7			
	8					8			
	9					9			
50	1				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%.				
	2								
	3								
	4								
	5								
	6								
	7								
	8								
	9								

STORET Station Number:

Secchi depth
Estimated?

points ranked 4-6
total points assessed
% 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-

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