



**FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET**

January 2016

PAGE 1 OF 1

Check box if data
qualified

STORET Station Name: Shady Brook @ 2400m US of 1300m Directly E of US 301 Date: 01/07/2016
(mm/dd/yyyy)
STORET Station ID: G1CE0021 ORG ID: 21 FLCEN Latitude: N 28.7812
(Decimal Degrees)
WBID: 1356 RQ: 2016-01-04-28 Field ID: G1CE0021-01072016 Longitude: W -82.0543
(STORET_mmmddyyyy) (Decimal Degrees)
Sampling Agency: FOEP C-Rec County: Suwannee Receiving Body of Water: Lake Panasoffkee

Sampling Team Members					WQ Measurements	Documentation	Sample Collection	Preservation	Preservation Check	Sampling Equipment				
Mike Linger					☒	☒	☒	☒	☒	☒ Sample Container	☐ Van Dorn			
Mike Drannan					☒	☒	☒	☒	☒	☐ Pole	☒ Syringe			
Katie Williams					☒	☒	☒	☒	☒	☐ Other				
										Collection Method				
										☒ Wading	Via Boat			
										☐ From Shore	☐ Canoe/Kayak			
										☐ Other	☐ Electric Motor			
											☐ Gasoline Motor			
Water Level: Dry / Low / <u>Normal</u> / High / Flooded										Matrix: <u>Fresh</u> / Marine / DI				
Meter ID# <u>11C / 11E</u>										Tide: Falling Yes / No				
Time Zone	Time	Total	Total Depth (m)	Temp (°C)	DO (mg/L)	DO (%SAT)	COND (µmhos/cm)	Salinity (ppt)	pH	Secchi Disk (m)	Field Blank	Duplicate	Photos	
<u>EST</u>	<u>1305</u>	<u>0.12</u>	<u>0.14</u>	<u>16.9</u>	<u>5.7</u>	<u>59</u>	<u>343</u>	<u>0.2</u>	<u>6.8</u>	<u>0.4(s)</u>	<u>top</u>	<u>top</u>	<u>Yes</u>	
	mid	mid	mid	mid	mid	mid	mid	mid	mid	mid	mid	mid		
CST	bottom	bottom	bottom	bottom	bottom	bottom	bottom	bottom	bottom	bottom	bottom	bottom	No	
Biological Samples Collected: None <u>HA</u> <u>SCI</u> <u>LVS</u> <u>RPS</u> LVI Other														
Parameter Suite	Parameter Methods						Preservation	Acid Lot#	Expiration	pH Check				
Preserved Nutrients	☒ TKN	☒ TP	☒ NOx	☒ NH3	☒ TOC	☐ Other	☒ Ice	☒ H2SO4	<u>5259020</u>	<u>9/14/16</u>	☒ < 2			
Metals	☐ W-ICPMS	☐ W-ICP					☐ Ice	☐ HNO3			☐ < 2			
Filtered Nutrients	☒ oP	☒ Field Filtered 0.45 µm Filter				☒ Ice								
Macroinvertebrates	☒ MI-FW-QLDC					☒ Ice	☒ Formalin							
Microbiology	☐ E Coli	☐ F Coli	☐ Enter	☐ QPCR		☐ Ice								
Periphyton	☐ ALGAE-ID					☐ Ice								
Pesticides	☐ W-PSNP-TQ	☐ W-PC-AA-SF	☐ W-AHERB-AA	☐ W-UHERB-AA		☐ Ice								
Other	☐ All Other Samples Unless Otherwise Noted					☐ Ice								

Contains
1:1
Sulfuric Acid
SA-5259020
EXP: 09/16/16
Warning!

Notes:

Date: 1-7-2016

G1CE0021 01072016

Time: 13:05

RQ-2016-01-04-28

Field ID ↑
STORET ↓

G1CE0021

Name: Michael Linger Signature: Michael Linger Date: 1/7/16

Field Parameters Entered into LIMS: ☒ By: MHL Date: 1/12/16

Field Parameters QC in LIMS: ☒ By: TIC Date: 1/14/16

Uploaded ☒ KMW 1/29/16

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

SAMPLE ID _____ ORG ID 21 FL-CEN LATITUDE 28.7811
 COUNTY Sumter STORET # G1CE0021 LONGITUDE -82.6542
 DATE 1/7/16 TIME 1300 SAMPLING AGENCY FOEP C-ROC
 SITE NAME Shady Brook @ 2400m US of US301
 FIELD ID/NAME G1CE0021-01072016 RECEIVING BODY OF WATER Lake Panasoffkee

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 _____ m wide _____ m/s <u>0.17</u> m/s _____ m/s _____ m deep <u>0.4</u> m deep _____ m deep			
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank: <u>10m</u> Right Bank: <u>15m</u>				Hydrologic Modification Score (per FT 3101)					
High Water Mark: <u>0.4</u> + <u>0.5</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 ☐		
SUBSTRATE TYPE Assessment Tool: ☒ SCI ☒ RPS ☒ LVS ☐ LCI ☐ BioRecon INVERT PERI % # Times # Times Coverage Sampled 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>0.2</u> <u>16.9</u> <u>6.8</u> <u>5.7</u> <u>59</u> <u>343</u> <u>0.2</u> <u>0.4</u> Mid: ☒ VOB Bottom: Meter ID: <u>11C / 11E</u> <u>0.4</u>					
			Water Odors Normal ☒ Petroleum ☐ Sewage ☐ Chemical ☐ Other ☐			Water Surface Oils Normal ☒ Sheen ☐ Globs ☐ 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: <u>60's, overcast</u> ☒ The antecedent hydrologic conditions have been met to my best knowledge.								

SAMPLING TEAM

Mike Linger, Mike Drennan, Katie Williams

SIGNATURE:

[Signature]

DATE:

1/7/16

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

Waterbody: <u>Shady Brook @ 2400m</u>	Date: <u>1/7/16</u>	County: <u>Sunter</u>	Storet Number: <u>G1CE0021</u>
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Analyst: Katie Williams US of US301 Signature: DK

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										Specimen collected (check)	HERBACEOUS SPECIES	Meter Mark										Specimen collected (check)
	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100			0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	
Alternanthera philoxeroides												Micranthemum glomeratum											
Bacopa caroliniana												Micranthemum umbrosum											
Bacopa monnieri												Myriophyllum aquaticum											
Bidens mitis <i>lanceolata</i>				✓		✓						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 <i>sp</i>	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Crinum americanum												Pontederia cordata	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Diodia virginiana												Potamogeton illinoensis											
Eichhornia crassipes		✓		✓	✓	✓						Ruellia simplex											
Eleocharis (wispy viviparous)												Sacciolepis striata											
Hydrilla verticillata												Sagittaria kurziana											
Hydrocotyle	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		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	✓	✓	✓		✓	✓	✓		✓	✓		Rhynchospora <i>sp</i>	✓			✓	✓	✓	✓	✓	✓		
Luziola fluitans												mitis <i>scandens</i>	✓			✓	✓	✓	✓	✓	✓		
												Spizella <i>(sp?) phlyza</i>	✓	✓		✓	✓	✓	✓	✓	✓		
												unknown <i>nasturtium</i>				✓	✓	✓			✓		
												Rumex <i>sp floridanum</i>					✓						

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: <u>Shady Brook @ 2900m US of US301</u>					County: <u>Somerset</u>		Date: <u>11/7/16</u>		Investigators: <u>Mike Linger</u>	
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	3			
	2	N				2	N			
	3	N	Y			3	N			
	4	N				4	5			
	5	N	Y	76		5	N		44	
	6	N	Y			6	N			
	7	N	Y			7	N			
	8	N	Y			8	N			
	9	N	Y			9	3			
10	1	3			70	1	3			
	2	N				2	N			
	3	N				3	N			
	4	N				4	N			
	5	N		mkc 76-56		5	N		16	
	6	N				6	N			
	7	N				7	N			
	8	3				8	3			
	9	2				9	4			
20	1	3			80	1	3			
	2	N				2	3			
	3	N	Y			3	N			
	4	N	Y			4	N			
	5	N		60		5	4		40	
	6	N				6	N			
	7	N				7	N			
	8	3				8	N			
	9	2				9	3			
30	1	4			90	1	N			
	2	3				2	N			
	3	N				3	N			
	4	N				4	N			
	5	3		40		5	N		44	
	6	N				6	N			
	7	N				7	N			
	8	N				8	3			
	9	3				9	3			
40	1	N			100	1	3			
	2	N				2	N			
	3	N				3	N			
	4	N				4	N			
	5	N	Y	36		5	N		48	
	6	3				6	N			
	7	3				7	4			
	8	N				8	3			
	9	N				9	2			
50	1	3			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	5								
	3	N								
	4	N								
	5	N		12						
	6	N								
	7	N								
	8	3								
	9	3								

STORET Station Number:

61CE0021

Secchi depth 0.4
Estimated?

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

Check accompanying data collected at same site/date.

Algal mat sample ☐
Linear Veg Survey ☒
Habitat Assessment ☒
SCI/Biorecon ☐
Water sample ☒

2010-01-04-28

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

14x4
96
56

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

A = 1000 m²
H_a = about 80 m²

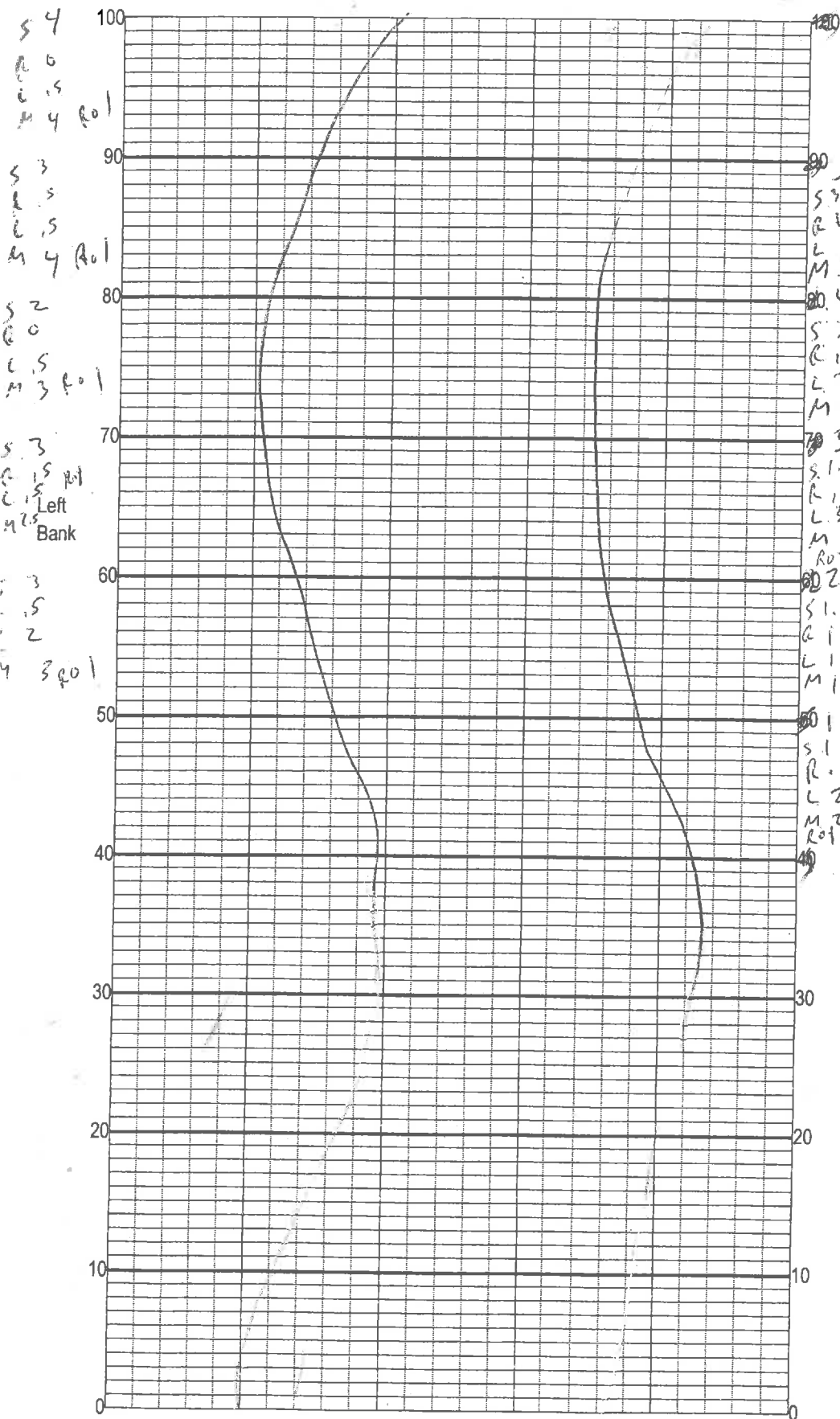
SAMPLING AGENCY: FDEP		STORET STATION NUMBER: G1CE0021	DATE (MM/DD/YYYY): 01/07/2016	RECEIVING BODY OF WATER:
REMARKS: C-ROC	COUNTY: Sumpter	LOCATION: Shadybrook		FIELD ID/NAME: G1CE0021-01072016

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 7	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 13	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 12 Primary Score 48	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 19	20 (19) 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1
Bank Stability Right Bank 10 Left Bank 16	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. (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 96 Left Bank 12	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 14 Left Bank 14	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
Secondary Score 109				

TOTAL SCORE

Date: 01/07/2016	Analyst: Mike Linger	Signature: <i>[Signature]</i>
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DEP Form FD 9000-4 Stream/River Habitat Assessment Sketch Sheet



Location: shady brook
 Date: 1/7/16
 Sampler: _____

100 m: Latitude _____	Longitude _____
0 m: Latitude _____	Longitude _____
Substrates: Code key, draw proportionate habitat abundance. %	
☐ S	Snags _____
☐ R	Roots/undercut banks _____
☐ L	Leaf Packs (or mats) _____
☐ M	Aquatic Macrophytes _____
☐ RD	<u>rock</u> _____
☐	_____
☐	_____
Pools	total # observed = _____ # range expected = _____
Average width <u>10</u> m	
Average depth <u>.5</u> 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:

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