

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

SAMPLE ID 79858 ORG ID 21FLWQSP LATITUDE 30.1321
COUNTY WAKULLA STORET # 22020050 LONGITUDE -84.4944
DATE 4-25-19 TIME 1320 SAMPLING AGENCY FL DEP / AEGA
SITE NAME SUPC HOPPY RIVER
FIELD ID/NAME SOPREF RECEIVING BODY OF WATER OCHLOCKONEE BAY

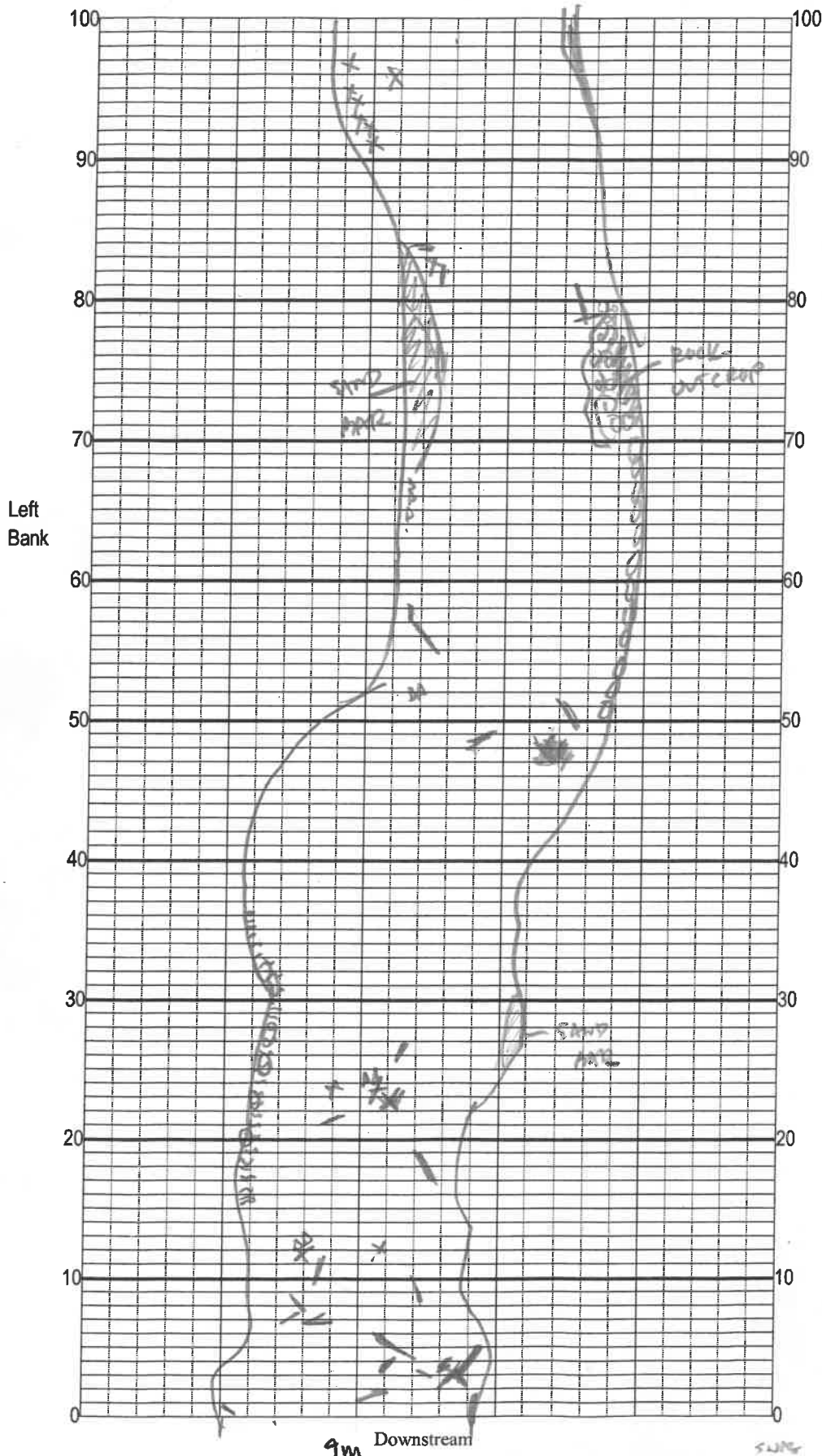
RIPARIAN ZONE / STREAM FEATURES

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) <u>1.1</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>10</u> m wide <u>.33</u> m/s <u>.33</u> m/s <u>.33</u> m/s
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank: <u>718m</u> Right Bank: <u>>18m</u>				Hydrologic Modification Score (per FT 3101) <u>1-2</u>				High Water Mark: <u>6.0</u> + <u>1.0</u> = <u>9.0</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 % Coverage INVERT # Times Sampled PERI # Times Sampled			WATER QUALITY Depth (M) Temp. (°C) pH (SU) D.O. (MG/L) D.O. Sat (%) Cond. (UMHO/CM) Salinity (PPT) SECCHI (M) Top: <u>0.15</u> <u>18.2</u> <u>7.2</u> <u>7.83</u> <u>83.2</u> <u>33.2</u> <u></u> Mid: <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> Bottom: <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> Meter ID: <u>154185</u> <u>1.0</u>					
Woody Debris (Snags) <u>4</u> <u>5</u> Undercut Banks / Roots <u>1</u> <u>5</u> Leaf Packs or Mat <u><1</u> <u>1</u> Aquatic Vegetation <u></u> <u></u> Rock or Shell Rubble <u>1</u> <u>5</u> Sand <u>93</u> <u>4</u> Mud / Muck / Silt <u></u> <u></u> Other <u></u> <u></u> Other <u></u> <u></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: <u>10/232</u> Exp: <u>10/13/19</u>			Color Tannic ☒ Green (Algae) ☐ Clear ☐ Other (Specify) ☐ <u>VERY DARK!</u>			Clarity Clear ☒ Slightly Turbid ☐ Turbid ☐ Opaque ☐		
Algae Sample Taken? ☐ Yes ☒ No Sample Preserved? ☐ Yes ☐ No Lot Number: <u>10/246</u> Exp: <u>5-20-20</u>			System Type: Stream ☒ Lake ☐ Wetland ☐ Estuary ☐ Other (Specify) ☐					
ABUNDANCE Not Obs. Rare Common Abundant Periphyton: ☒ ☐ ☐ ☐ Fish: ☒ ☐ ☐ ☐ Aquatic Plants: ☒ ☐ ☐ ☐ Iron/Sulfur Bacteria: ☒ ☐ ☐ ☐			AMBIENT FIELD CONDITIONS / NOTES: <u>CALM, +/- SOF. SLIGHTLY HIGHER THAN RECENT SAMPLING</u> <u><2m² PLANTS</u> ☒ The antecedent hydrologic conditions have been met to my best knowledge.					
SAMPLING TEAM <u>JACKSON, SNIBBLE, KONEAL</u>			SIGNATURE: <u>[Signature]</u>			DATE: <u>4-25-19</u>		

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: SOPCHOPPY RIVER

Date: 4-25-19

Sampler: JACKSON

100 m: Latitude _____
Longitude _____

0 m: Latitude _____
Longitude _____

Substrates: Code key, draw proportionate habitat abundance. %

	Snags	<u>4</u>
	Roots/undercut banks	<u>1</u>
	Leaf Packs (or mats)	<u>21</u>
	Aquatic Macrophytes	_____
	Rock	<u>1</u>
	_____	_____
	Pools	total # observed = _____ # range expected = _____

Average width 10 m

Average depth 1.0 m

Velocity measured at 0 meter mark.

WQ & chemistry taken at 0 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:

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

SAMPLING AGENCY: FDEP-REGA		STORET STATION NUMBER: 22020050	DATE (MM/DD/YY): 4.25.19	RECEIVING BODY OF WATER:
REMARKS: EPO REG REP	COUNTY: WAKULLA	LOCATION: SUPCHIPPY RIVER	FIELD ID/NAME: JOPREP	

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 14	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1
Substrate Availability 6	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 20	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 20 18 ----- Primary Score 58	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 20	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 8 Left Bank 8	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 7 Left Bank 10	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 8 Left Bank 10 ----- Secondary Score 73 71	10 9	8 7 6	5 4	3 2 1

12129

TOTAL SCORE

Date: 4.25.19	Analyst: J Jackson	Signature: J Jackson
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DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: <u>Suppuy River</u>					County: <u>WAKULLA</u>		Date: <u>4.25.19</u>		Investigators: <u>J Jackson</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	STORET Station Number:	
0	1	N			60	1	N			78	
	2					2					
	3					3					
	4					4					
	5					5					
	6					6					
	7					7					
	8					8					
	9					9					
10	1				70	1				73	
	2					2					
	3					3					
	4					4					
	5					5					
	6					6					
	7					7					
	8					8					
	9					9					
20	1				80	1				78	
	2					2					
	3					3					
	4					4					
	5					5					
	6					6					
	7					7					
	8					8					
	9					9					
30	1				90	1				69	
	2					2					
	3					3					
	4					4					
	5					5					
	6					6					
	7					7					
	8					8					
	9					9					
40	1				100	1				33	
	2					2					
	3					3					
	4					4					
	5					5					
	6					6					
	7					7					
	8					8					
	9					9					
50	1					1				53	
	2					2					
	3					3					
	4					4					
	5					5					
	6					6					
	7					7					
	8					8					
	9					9					

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	0.2
Estimated?	

# points ranked 4-6	20
total points assessed	99
% points ranked 4-6	20

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

Waterbody: <u>SUPCHOLPY RIVER</u>	Date: <u>4-25-19</u>	County: <u>WAKONA</u>	Storet Number:
Analyst: <u>JACKSON</u>	Signature: <u>[Signature]</u>		
Comments: <u>NO PLANTS IN WATER</u>			

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	
<i>Alternanthera philoxeroides</i>												<i>Micranthemum glomeratum</i>											
<i>Bacopa caroliniana</i>												<i>Micranthemum umbrosum</i>											
<i>Bacopa monnieri</i>												<i>Myriophyllum aquaticum</i>											
<i>Bidens bitis</i>												<i>Najas guadelupensis</i>											
<i>Boehmeria cylindrica</i>												<i>Nuphar luteum</i>											
<i>Centella asiatica</i>												<i>Orontium aquaticum</i>											
<i>Ceratophyllum demersum</i>												<i>Panicum hemitomon</i>											
<i>Chara</i>												<i>Panicum repens</i>											
<i>Cicuta maculata</i>												<i>Panicum rigidulum</i>											
<i>Cladium jamaicense</i>												<i>Pistia stratioides</i>											
<i>Colocasia esculenta</i>												<i>Polygonum glabra</i>											
<i>Commelina diffusa</i>												<i>Polygonum hydropiperoides</i>											
<i>Commelina virginica</i>												<i>Polygonum punctatum</i>											
<i>Crinum americanum</i>												<i>Pontedaria cordata</i>											
<i>Diodia virginiana</i>												<i>Potamogeton illinoensis</i>											
<i>Eichhornia crassipes</i>												<i>Ruellia simplex</i>											
<i>Eleocharis (wispy viviparous)</i>												<i>Sacciolepis striata</i>											
<i>Hydrilla verticillata</i>												<i>Sagittaria kurziana</i>											
<i>Hydrocotyle</i>												<i>Sagittaria lancifolia</i>											
<i>Hygrophila polysperma</i>												<i>Sagittaria latifolia</i>											
<i>Hymenocallis</i>												<i>Salvinia minima</i>											
<i>Ischnanthes caroliniana</i>												<i>Samolus parviflora</i>											
<i>Juncus punctata</i>												<i>Saururus cernuus</i>											
<i>Juncus</i>												<i>Sparganium americanum</i>											
<i>Juncus sessiflora</i>												<i>Typha</i>											
<i>Juncus leptocarpa</i>												<i>Vallisneria spiralis</i>											
<i>Juncus palustris</i>												<i>Zizania aquatica</i>											
<i>Juncus peruviana</i>																							
<i>Juncus repens</i>																							
<i>Juncus fluitans</i>																							