

Site Name Sweetwater Creek off dirt Road NW of Sandy
Field ID G4NW0419 Storet G4NW0419 ^{Landing Road}
Visit ID 79230
RPS ID 9242
VPDB ID N/A
HA ID 15656 AB 15657

Date: 2/12/2019
Project: SMP
RQ: 2019-02-11-26
LIMS ID: _____

☒ ~~LVI~~ SCI

☐ RPS/LVS Only

☒ Sample Site Created in SBIO ^{FB} 2/25/2019

☒ Phys/Chem entered in SBIO

☒ HA entered in SBIO Initial FB 2/24/2019 ☐ Date and Initial QA: _____

☒ RPS entered in SBIO Initial FB 2/26/19 ☐ Date and Initial QA: _____

☐ LVI entered in SBIO Initial _____ ☐ Date and Initial QA: _____

☒ < 2 m² vegetation

☐ Plants getting verified Date submitted: _____

☐ Plants verified Date returned: _____

☐ RPS authorized in SBIO ☐ Date and Initial: _____

☐ RPS score: _____

☐ VPDB authorized in SBIO ☐ Date and Initial: _____

☐ VPDB score: _____

☐ SCI complete: _____ SCI Score: _____

☒ If SMP, scanned into database



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2019

Data Qualified?

Yes ☒ No ☐

WIN Station Name: Sweetwater Creek off dirt road NW of Sandy Landing Rd.

Date: 2/12/19
(mm/dd/yyyy)

WIN/ Field ID: G4NW0419

WBID: 21

Latitude: 30.838284

County: Santa Rosa

ORG ID: 21FLPNS

Longitude: -86.870700

Receiving Body of Water: Blackwater River

RQ-2019- 02-11-20
(Decimal Degrees)

Sampling Team Members					WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
J. P. H.									
M. King									

Sampling Equipment		
☒ Sample Container	☐ Van Dorn	☐ Pole
☐ Carboy	☒ Syringe	
☐ Dipper	☐ Other	
Depth Measured with		
Equipment ID		

Collection Method		
☒ Wading	☐ Canoe/Kayak	
☐ From Shore	☐ Electric Motor	
☐ Other	☐ Gasoline Motor	

Water Level: Dry/ Pooled/ Low ☒ Normal ☐ High / Flooded

Meter ID# 154179

Matrix: ☒ Fresh / Marine / DI

Photos: Yes / No

Flow: No Flow / Intestinal ☒ Flowing ☐ NA

Tide: Rising/ Falling/ Slack ☒ NA

Tide Times: High Low

Time Zone	Time	Total Depth (m)	Sample Depth (m)	Secchi Disk (m)	DO (mg/L)	DO (%SAT)	pH	Salinity (PPT)	Sp COND (umhos/cm)	Temp. (C°)
EST	1145	1.4	0.3	1.4	9.05	94.9	5.46	0.01	15.6	17.6
CEN				(5)						

Biological Samples Collected: None ☒ HAP ☒ SCI ☒ RPS ☐ Algae ID ☐ LVS ☐ LVI ☐ Other:

SBIO ID Numbers: SBIO-ID: 79230 HA-ID: 15657 RPS-ID: 9242 Macrophyte-ID: N/A LIMS#:

Parameter Suite	Parameter Methods	Preservation	Lot#	Expiration	pH Check
Preserved Nutrients	☒ W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP	☒ Ice ☒ H2SO4	SA 8197090	07/10/19	☒ >2
Metals	☐ W-ICPMS ☒ W-ICP	☒ Ice ☒ HNO3	NA 8344050	12/10/19	☒ <2
Filtered Nutrients	☒ W-PO4-F ☒ Field Filtered 0.45 um Filter	☒ Ice			
Chlorophyll	☒ CHLSUITE-W	☒ Ice			
Physical/Aggregate (Fresh)	☐ Alkalinity / W-F / W-TSS / TURBIDITY / W-CH-IC / W-COLOR / W-SO4-IC / W-TDS	☒ Ice			
Physical/Aggregate (Marine)	☐ Alkalinity / W-BR-IC / W-F / W-TSS / TURBIDITY	☐ Ice			
Macroinvertebrates	☒ MI-FW-QLDC	☐ Formalin			
Periphyton	☐ ALGAE-ID NA	☐ Ice			
Microbiology	☒ E Coli ☐ F-Coli ☐ Enterococci	☒ Ice			
Molecular	☐ PCR-FILTER ☐ PCR-BqCR ☐ PCR-GULL2 ☐ PCR-HF183 ☐ PCR-DG3 ☐ PCR-GFD	☐ Ice			
Tracers	☒ W-E8321-DI ☐ W-E8321-MS	☒ Ice			
Pesticides	☒ W-PSNP-TQ	☐ Ice			
Phytoplankton	☐ DTY-QN-C ☐ PKD-QN-C				

Notes: HAP ID 15657
NO WS conducted.

Field/WIN ID



G4NW0419

Location:

Sweetwater Creek off dirt road NW of Sandy Landing Rd.

Signature: [Signature]

Date: 2/12/19

LIMS EVENT ID: WIN Import ID:

Enter Field Parameters, Verify Station ID In LIMS DMT: QC Station ID, Field Parameters In LIMS DMT:

Scan/Save Field Sheets (Initials/Date) Migrate Data to WIN: (Initials/Date) Verify Data In WIN: (Initials/Date)

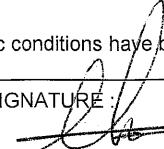
DEP Form FD 9000-3 Physical/Chemical Characterization Field Sheet

SAMPLE ID 79230 ORG ID 21FLPNS LATITUDE 30.83845
 COUNTY Santa Rosa STORET # 64NW049 LONGITUDE 86.87053
 DATE 2/12/19 TIME 1145 SAMPLING AGENCY DEP NW ROC
 SITE NAME SNEETWATER CREEK off dirt rd NW of Sandy Landing rd
 FIELD ID/NAME 64NW049 RECEIVING BODY OF WATER

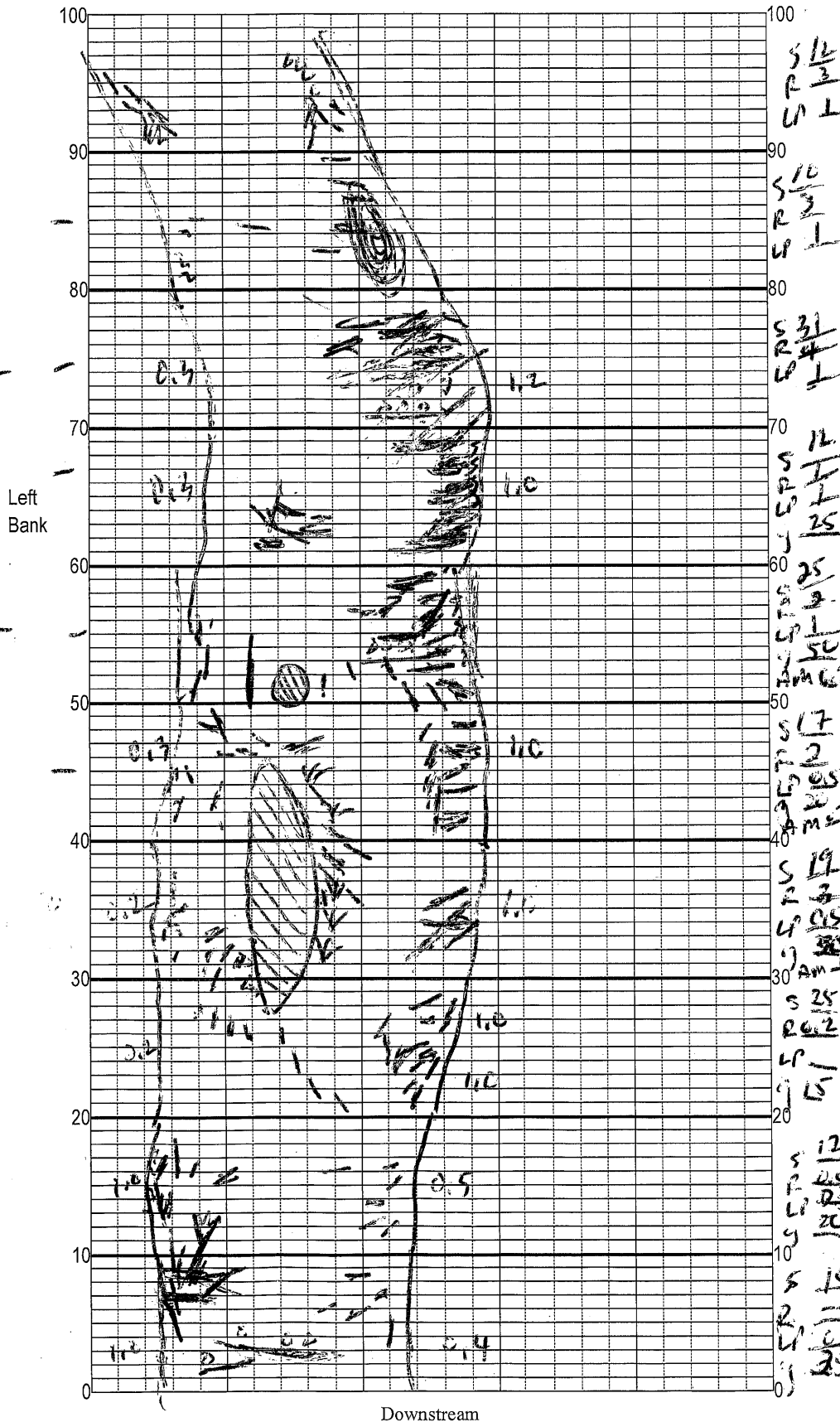
RIPARIAN ZONE / STREAM FEATURES

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>N/A</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>12</u> m wide	
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank: <u>>18</u> Right Bank: <u>>18</u>				Hydrologic Modification Score (per FT 3101) <u>1-2</u>		<u>0.33</u> m/s <u>0.33</u> m/s <u>0.5</u> m/s	
High Water Mark: <u>1.5</u> + <u>1.5</u> = <u>3.0</u> (m) (above present water level) (present depth) (above bed)				Artificially Impounded ☐ Yes ☒ No		<u>0.3</u> m deep <u>0.6</u> m deep <u>0.9</u> m deep	
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>0.3</u></td> <td><u>17.6</u></td> <td><u>5.46</u></td> <td><u>9.06</u></td> <td><u>94.9</u></td> <td><u>15.6</u></td> <td><u>0.9</u></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><u>1.4</u></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>0.3</u>	<u>17.6</u>	<u>5.46</u>	<u>9.06</u>	<u>94.9</u>	<u>15.6</u>	<u>0.9</u>		Mid:								☒ VOB	Bottom:	<u>1.4</u>							
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Mid:								☒ VOB																																				
Bottom:	<u>1.4</u>																																											
Woody Debris (Snags) <u>14</u> <u>5</u> Undercut Banks / Roots <u>1.4</u> <u>5</u> Leaf Packs or Mat <u>0.5</u> <u>5</u> Aquatic Vegetation <u>21</u> Rock or Shell Rubble..... Sand..... <u>71</u> <u>2</u> Mud / Muck / Silt Other <u>gravel</u> <u>14</u> <u>3</u> Other			Water Odors Normal ☒ Petroleum ☐ Sewage ☐ Chemical ☐ Other ☐			Water Surface Oils Normal ☒ Sheen ☐ Globbs ☐ Slick ☐ Other ☐																																						
			Water Sample Taken? ☒ Yes ☐ No Sample Preserved? ☒ Yes ☐ No Lot Number: <u>5148197090</u> Exp: <u>07/16/19</u> <u>N/A 53440572</u> <u>12/10/17</u>			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 <table border="1"> <thead> <tr> <th></th> <th>Not Obs.</th> <th>Rare</th> <th>Common</th> <th>Abundant</th> </tr> </thead> <tbody> <tr> <td>Periphyton:</td> <td>☐</td> <td>☐</td> <td>☒</td> <td>☐</td> </tr> <tr> <td>Fish:</td> <td>☐</td> <td>☐</td> <td>☒</td> <td>☐</td> </tr> <tr> <td>Aquatic Plants:</td> <td>☐</td> <td>☒</td> <td>☐</td> <td>☐</td> </tr> <tr> <td>Iron/Sulfur Bacteria:</td> <td>☐</td> <td>☒</td> <td>☐</td> <td>☐</td> </tr> </tbody> </table>				Not Obs.	Rare	Common	Abundant	Periphyton:	☐	☐	☒	☐	Fish:	☐	☐	☒	☐	Aquatic Plants:	☐	☒	☐	☐	Iron/Sulfur Bacteria:	☐	☒	☐	☐	System Type: Stream ☒ Lake ☐ Wetland ☐ Estuary ☐ Other (Specify) ☐																
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AMBIENT FIELD CONDITIONS / NOTES: ☒ The antecedent hydrologic conditions have been met to my best knowledge.																																												
SAMPLING TEAM <u>MIKE KING / JIMMY PITTS</u>				SIGNATURE: 		DATE: <u>2/12/19</u>																																						

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



Location: Sweetwater Creek

Date: 2/12/19

Sampler: MIKE KING

100 m: Latitude 30.838254
Longitude 86.89682

0 m: Latitude 30.83845
Longitude 86.87053

Substrates: Code key, draw proportionate habitat abundance.

	Snags	178	13.7
	Roots/undercut banks	18.7	1.4
	Leaf Packs (or mats)	7	0.5
	Aquatic Macrophytes	1.5	
	gravel	185	14.2
	Pools		
		total # observed =	
		# range expected =	

Average width 13 m

Average depth 10.8 m

Velocity measured at 50 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:

SB10 ZD 79234

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

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

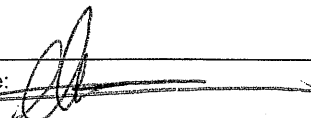
SAMPLING AGENCY: FDEP NW ROC		STORET STATION NUMBER: 64NW0419	DATE (MM/DD/YY): 2/12/19	RECEIVING BODY OF WATER: Blackwater River
REMARKS: SB10 20 79234	COUNTY: SANTA ROSA	LOCATION: Sweetwater Creek NW Sandy landing		FIELD ID/NAME: 64NW0419

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 <u>11</u>	20 19 18 17 16	15 14 13 12 <u>11</u>	10 9 8 7 6	5 4 3 2 1
Substrate Availability <u>10</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>10</u> 9 8 7 6	Less than 5% major productive habitat 5 4 3 2 1
Water Velocity <u>20</u>	Max. observed at typical transect: > 0.25 m/sec. But < 1 m/sec ≥0.33 0.31 0.29 0.27 >0.25 <u>20</u> 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 <u>15</u> ----- Primary Score <u>56</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. <u>15</u> 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 Artificial Channelization <u>20</u>	Expected sinuosity given the stream width. No evidence of dredging or artificial straightening. No spoil banks. <u>20</u> 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 <u>8</u> Left Bank <u>7</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>8</u> <u>7</u> 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>10</u> Left Bank <u>10</u>	Width of vegetation greater than 18 m <u>10</u> 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 <u>10</u> Left Bank <u>9</u> ----- Secondary Score <u>74</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. <u>10</u> <u>9</u>	>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

130

TOTAL SCORE

HA ID 15657

Date: 2/12/19	Analyst: Mike King	Signature: 
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DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: <u>Sweetwater Creek</u>					County: <u>Santa Rosa</u>		Date: <u>2/12/19</u>		Investigators: <u>MIKE KNOX</u>	
									STORET Station Number: <u>64WW0419</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	N		60	1	N	N		
	2					2				
	3					3				
	4					4				
	5					5				24
	6					6				
	7					7				
	8					8				
	9					9				
10	1	N			70	1	N			
	2					2				
	3					3				
	4					4				
	5					5				16
	6					6				
	7					7				
	8					8				
	9					9				
20	1	N			80	1	N			
	2					2				
	3					3				
	4					4				
	5					5				16
	6					6				
	7					7				
	8					8				
	9					9				
30	1	N			90	1	N			
	2					2				
	3					3				
	4					4				
	5					5				20
	6					6				
	7					7				
	8					8				
	9					9				
40	1	N			100	1	X	N		
	2					2				
	3					3				
	4					4				
	5					5				16
	6					6				
	7					7				
	8					8				
	9					9				
50	1	N			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									

Secchi depth	<u>71.4</u>
Estimated?	<u>Y</u>

# points ranked 4-6	<u>6</u>
total points assessed	<u>99</u>
% points ranked 4-6	<u>6</u>

Check accompanying data collected at same site/date.	
Algal mat sample	
Linear Veg Survey	<u>MA</u>
Habitat Assessment	<u>✓</u>
SCI/Biorecon	<u>✓</u>
Water sample	<u>✓</u>
RQ- <u>2019-02-11-26</u>	

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

SB10 ID 79230
RPS ID 9242

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

Storet Number:	64NW0419
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Signature: [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.

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 monneri												Myriophyllum aquaticum											
Bidens mitis												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											
Crinum americanum												Pontedaria 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																							
Luziola fluitans																							
If no Dominant or Co-Dominant were selected, indicate with "X"																							