



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2018

Data Qualified?

Yes

No

Location/STORET Station Name: Huckleberry Creek

Date: 04/04/2018
(mm/dd/yyyy)

WIN ID G3NW0135

WBID: 246

Latitude: 30.808769

County: Walton RQ - 2018-04-02-53

ORG ID: 21FLPNS

Longitude: -86.089558
(Decimal Degrees)

Receiving Body of Water: Sandy Creek

Field ID: G3NW0135

Sampling Team Members					WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check	Sampling Equipment				
Frank Butera										☐ Sample Container	☐ Van Dorn	☐ Pole		
Stopher Slade										☐ Carboy	☐ Syringe			
J.P.H.S.										☐ Dipper	☐ Other			
										Equipment ID				
										Collection Method				
										☒ Wading	☐ Canoe/Kayak			
										☐ From Shore	☐ Electric Motor			
										☐ Other	☐ Gasoline Motor			

Water Level: Dry / Low / Normal / Above Normal / Flooded					Meter ID# <u>132237</u>		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 (µmhos/cm)	Temp. (C°)
EST	<u>11:55</u>	<u>1.4</u>	<u>0.3</u>		<u>7.01</u>	<u>82.7</u>	<u>6.14</u>	<u>0.01</u>	<u>2.7</u>	<u>19.1</u>
CEN										

Biological Samples Collected:		None		<u>HA</u>	<u>SCI</u>	<u>RPS</u>	Algae ID	LVS	LVI	Other:
SBIO ID Numbers:		SBIO-ID: <u>78310</u>	HA-ID: <u>15489</u>	RPS-ID: <u>8957</u>	Macrophyte-ID: <u>N/A</u>	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	SA7233030	08/21/18	☒ <2		
Metals	☐ W-ICPMS ☐ W-ICP				☐ Ice ☐ HNO3			☐ <2		
Filtered Nutrients	☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter				☒ Ice	9798594				
Chlorophyll	☒ CHLSUITE-W				☒ Ice					
Physical/Aggregate (Fresh)	☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-CHC / W-COLOR / W-SO4-IC / W-TDS				☒ Ice					
Physical/Aggregate (Marine)	☐ Alkalinity / W-F / W-TSS / TURBIDITY				☐ Ice					
Macroinvertebrates	☒ MI-FW-QLDC				☒ Formalin					
Periphyton	☐ ALGAE-ID				☐ Ice					
Microbiology	☒ E Coli ☐ F Coli ☐ Enterococci				☒ Ice					
Molecular	☐ PCR-FILTER ☐ PCR-HF183 ☐ PCR-BacR ☐ PCR-GULL2 ☐ PCR-GFD				☐ Ice					
Tracers	☐ W-SUC-AA-R ☐ W-UHERB-AA ☐ W-AHERB-AA				☐ Ice					
Pesticides	☐ W-PSNP-TQ ☐ W-UHERB-AA ☐ W-AHERB-AA ☐ W-CARB-AA				☐ Ice					
	☐ W-PCL-SQ-R ☐ W-PYR-AA-R ☐ W-GLYPH ☐ W-SUC-AA-R				☐ Other					

Notes: Water Quality Samples lost by Red Ex and cancelled SCI's samples arrived in holding. BACT-T samples h/d. to U.W.F. contract lab on time.

Signature: [Signature]

Field/WIN ID



G3NW0135

Location:



HUCKLEBERRY CREEK

Date: 04/04/2018

Enter Field Parameters, Verify Station ID in LIMS DMT:

QC Station ID, Field Parameters in LIMS DMT:

Scan/Save Field Sheets FB 4-10-18

Migrate Data to WIN: (Initials/Date)

Verify Data in WIN: (Initials/Date)

(Initials/Date)

(Initials/Date)

(Initials/Date)

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

SAMPLE ID 78314 ORG ID 21FLPNS LATITUDE 30.808769
 COUNTY Walton WIN ID/STORET # G3NW0135 LONGITUDE -86.089558
 DATE 04/04/2018 TIME 11:55 CTZ SAMPLING AGENCY FL DEP - NWROC
 SITE NAME Huckleberry Creek
 FIELD ID/NAME G3NW0135 RECEIVING BODY OF WATER Sandy Creek WBID 246 Project SMP- TMDL Studies

RIPARIAN ZONE / STREAM FEATURES

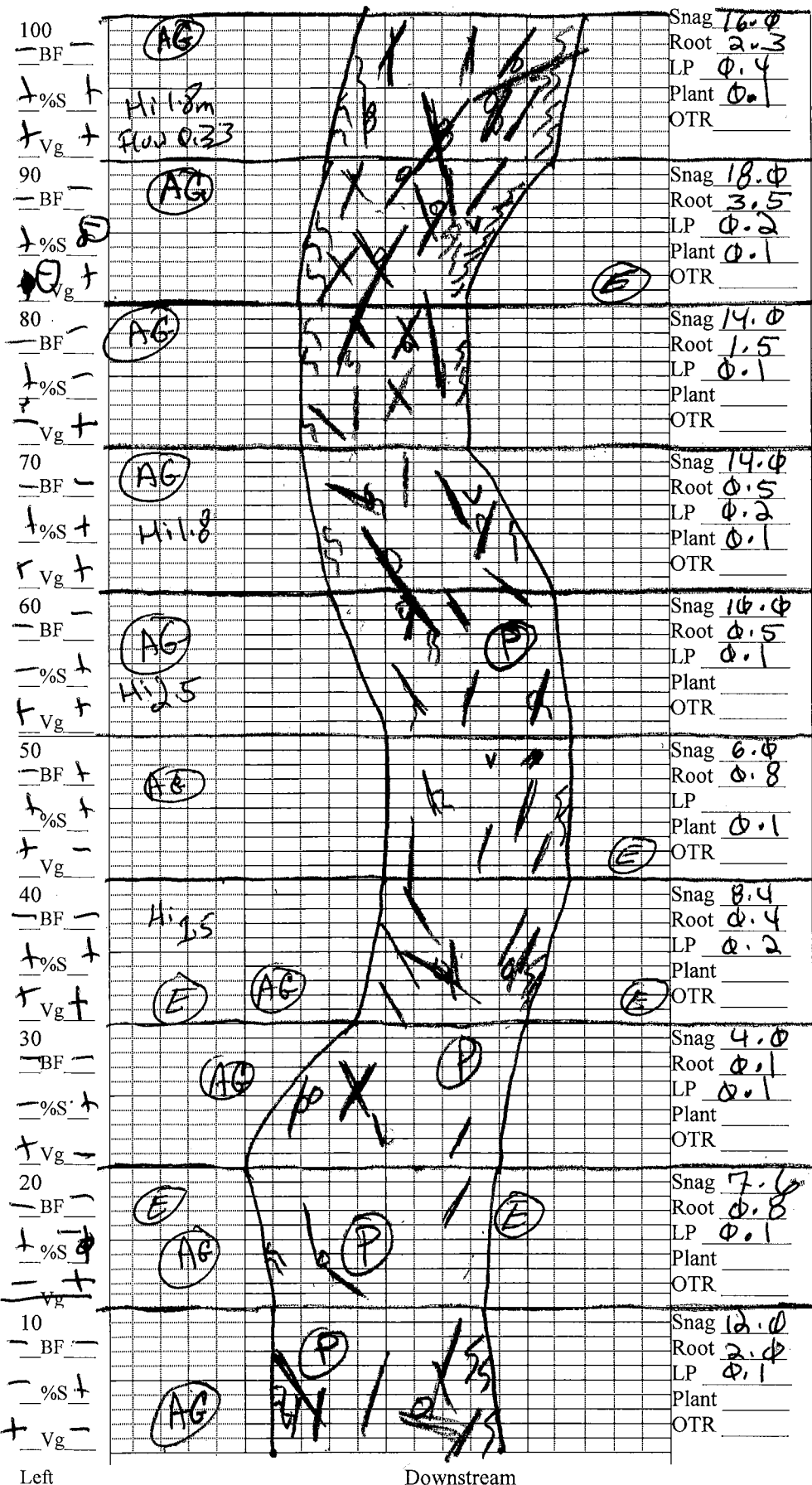
PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category) : Forest/Natural ☐ Silviculture ☐ Field/Pasture ☐ Agricultural ☐ Residential ☐ Commercial ☐ Industry ☐ Other (Specify) ☐							Landscape Development Intensity Index (LDI) ☐
Local Watershed Erosion (select one) : ☐ None ☐ Slight ☒ Moderate ☒ Heavy Local Watershed NPS Pollution : ☐ No evidence ☐ Slight ☒ Moderate ☐ Heavy							Typical Width (m) <u>10m mk</u> Depth (m)/Velocity (m/sec) Transect <u>3.8</u> m wide <u>0.2</u> m/s <u>.33</u> m/s <u>0.2</u> m/s
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank : <u>718</u> Right Bank : <u>718</u>				Hydrologic Modification Score (per FT 3101) <u>1-2</u>			m/s <u>0.2</u> m/s <u>0.2</u> m/s
High Water Mark: <u>2.5</u> + <u>1.4</u> = <u>3.9</u> (m) (above present water level) (present depth) (above bed)				Artificially Impounded ☐ Yes ☒ No			m deep <u>0.4</u> m deep <u>0.6</u> m deep <u>0.4</u> m deep
Artificially ☒ No ☐ Mostly recovered, more sinuous Channelized : ☐ Some recovery ☐ Recent, severe				Canopy Cover % <u>57%</u> ☐ 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 Woody Debris (Snags) <u>29.7</u> <u>7</u> Undercut Banks / Roots <u>3.4</u> <u>7</u> Leaf Packs or Mat <u>0.4</u> <u>4</u> Aquatic Vegetation <u>0.1</u> <u>1.4</u> Rock or Shell Rubble..... Sand..... <u>66.5</u> <u>1.4</u> 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>19.21</u> <u>6.14</u> <u>7.62</u> <u>82.7</u> <u>27</u> <u>0.01</u> <u>1.4</u> Mid: <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> Bottom <u>1.4</u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> Meter ID: <u>132237</u> <u>Post-Verify</u> <u>1.4</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 ☐ Globbs ☐ 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: RQ-2018-04-02-53. <u>Water quality samples lost by Fed Ex. E. coli b SCI delivered w/in holding times. Vegetation is Rutinoidis (not vascular).</u> ☒ The antecedent hydrologic conditions have been met to my best knowledge.		
SAMPLING TEAM: Frank Butera, Stopher Slade, Jimmy Pitts			SIGNATURE: <u>Frank Butera</u>		DATE: <u>04/04/2018</u>

Stream/River Habitat Sketch Sheet, Form FD 9000-4 (June 1, 2001)

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



WIN ID G3NW0135

Substrates: Code key, draw proportionate habitat abundance. 33.6% 10% 10%

Snags 11% $370 = 29.6\%$

Roots/undercut banks 13.4% $370 = 3.4\%$

Leaf Packs (or mats) 1.5% $370 = 0.4\%$

Macrophytes 0.4% $370 = 0.1\%$

Gravel

Pool (AG) Algae

Erosion

Velocity: $95\text{m} = 0.33$

Note where velocity measures were taken. $42\text{m} = 0.3$

Habitat Smothering:
Note areas (on map) where sand or silt is something substrates, limiting habitability. $4\text{pools} / 10.3$

Bank Stability:
Note areas (on map) with unstable, eroding banks.

Riparian Buffer Width:
Note areas (on map) where natural vegetation is altered or eliminated.

Average width 3.7m

Average depth 0.6m

WQ & chemistry taken @ 10m

Huckleberry Creek

Project. TMDL Studies

Sampled By/Date: 04/04/2018 /

FB

0 m Latt. 30.80867

0 m Long. -86.08952

100 m Latt 30.80853

100 m Long -86.09038

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

SAMPLING AGENCY: 21FLPNS		STORET STATION NUMBER: G3NW0135	DATE (MM/DD/YY): 04/04/18	RECEIVING BODY OF WATER: Sandy Creek
REMARKS: WBID 246	COUNTY: Walton	LOCATION: Huckleberry Creek		FIELD ID/NAME: G3NW0135

Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components Substrate Diversity <u>14</u>	Four or more major productive habitats present [snags, tree roots, aquatic vegetation, leaf packs (partially decayed), rock] 20 19 18 17 16	Three major productive habitats present. Adequate habitat. Some substrates may be new fall (fresh leaves or snags) 15 14 13 12 11	Two major productive habitats present. Less than desirable habitat, frequently disturbed or removed (10) 9 8 7 6	One or less major productive habitat. Lack of habitat is obvious, substrates unstable or smothered 5 4 3 2 1
Substrate Availability <u>17</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 10 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 (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 <u>12</u> ----- Primary Score <u>59</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. 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 Artificial Channelization <u>20</u>	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 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>6</u> Left Bank <u>5</u>	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 <u>14</u> Left Bank <u>14</u>	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 <u>14</u> Left Bank <u>14</u> ----- Secondary Score <u>71</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. (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

130 TOTAL SCORE

Date: <u>04/04/2018</u>	Analyst: <u>F. BUTERA</u>	Signature: <u>[Signature]</u>
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SBIO ID: 78310 HA ID: 15489

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: Huckleberry Creek					County: Walton		Date: 04/04/2018		Investigators: S. Slade	
									STORET Station Number: G3NW0135	

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			68		5				72
	6					6				
	7					7				
	8					8				
	9					9				
10	1	N	N		70	1	N	N		
	2					2				
	3					3				
	4					4				
	5			56		5				40
	6					6				
	7					7				
	8					8				
	9					9				
20	1	N	N		80	1	N	N		
	2					2				
	3					3				
	4					4				
	5			74		5				50
	6					6				
	7					7				
	8					8				
	9					9				
30	1	N	N		90	1	N	N		
	2					2				
	3					3				
	4					4				
	5			68		5				22
	6					6				
	7					7				
	8					8				
	9					9				
40	1	N	N		100	1	N	N		
	2					2				
	3					3				
	4					4				
	5			48		5				38
	6					6				
	7					7				
	8					8				
	9					9				
50	1	N	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			60						
	6									
	7									
	8									
	9									

Secchi depth	1.4
Estimated?	N

# points ranked 4-6	0
total points assessed	99
% points ranked 4-6	0

Check accompanying data collected at same site/date.	
Algal mat sample	
Linear Veg Survey	
Habitat Assessment	✓
SCI/Biorecon	✓
Water sample	✓
RQ-2018-04-02-53	

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

SBIO Visit ID.	78310
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RPS VISIT ID	8957
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DEP FORM FD 9000-32: LINEAR VEGETATION SURVEY FIELD SHEET

Huckleberry Creek Date: 04/04/2018 County: Walton Storet Number: G3NW0135
Analyst: F. Butera Signature: [Signature]
Comments: SBIO ID: 78310 Macro ID: N/A. Insufficient Vegetation. NO LVS collected
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												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"	X	X	X	X	X	X	X	X	X	X	X												
Indicate % cover macrophytes per section																							
0-5% Macrophyte Coverage	X	X	X	X	X	X	X	X	X	X	X												
>5 and ≤10% Macrophyte Coverage																							
>10 and ≤25% Macrophyte Coverage																							
>25 and ≤50% Macrophyte Coverage																							
> 50% Macrophyte Coverage																							