



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2018

Data Qualified?

Yes / No

Location/STORET Station Name: Choctawhatchee River upstream of Holmes Creek

Date: 07/11/18
(mm/dd/yyyy)

WIN ID G3NW0129

WBID: 49C

Latitude: 30.49838

County: Walton

RQ - 2018-06-18-21

ORG ID: 21FLPNS

Longitude: -85.86235
(Decimal Degrees)

Receiving Body of Water: Choctawhatchee Bay

Field ID: G3NW0129

Sampling Team Members					WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
S. Slade N. Molkey					/	/	/	/	/

Sampling Equipment		
☒ Sample Container	☐ Van Dorn	☐ Pole
☐ Carboy	☒ Syringe	
☐ 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# 13223

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		2.8	0.3	0.8	6.09	78.2	6.68	0.04	81	28.29
<u>CEN</u>	<u>1400</u>		<u>2.3</u>		<u>6.07</u>	<u>77.9</u>	<u>6.64</u>	<u>0.04</u>	<u>81</u>	<u>28.25</u>

Biological Samples Collected: None HA SCI RPS Algae ID LVS LVI Other:

SBIO ID Numbers: SBIO-ID: HA-ID: RPS-ID: Macrophyte-ID: 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			☒ <2
Metals	☐ W-ICPMS ☐ W-ICP	☐ Ice ☐ HNO3			☐ <2
Filtered Nutrients	☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter	☒ Ice			
Chlorophyll	☒ CHLSUITE-W	☒ Ice			
Physical/Aggregate (Fresh)	☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-CL-IC / 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 Coll ☐ F Coll ☐ 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 ☐ W-PCL-SQ-R ☐ W-PYR-AA-R ☐ W-GLYPH ☐ W-SUC-AA-R	☐ Ice ☐ Other			

Place Preservative Sticker(s) Here (If Available)

Notes:

Flow: 1/4

Field/WIN ID



G3NW0129

Location:

Choctawhatchee River upstream of Holmes Creek

Signature:

Date:

Enter Field Parameters, Verify Station ID in LIMS DMT:

QC Station ID, Field Parameters in LIMS DMT:

Scan/Save Field Sheets

Migrate Data to WIN:

Verify Data in WIN:

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

SAMPLE ID _____ ORG ID _____ LATITUDE 30.49850
 COUNTY Walton STORET # 631W0129 LONGITUDE 85.86232
 DATE 7/11/18 TIME 1400 SAMPLING AGENCY FDPP NW ROC
 SITE NAME Chockwathatchee River upstream of Holmes Creek
 FIELD ID/NAME 631W0129 RECEIVING BODY OF WATER Chockwathatchee 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) ☐
Local Watershed Erosion (select one): ☐ None ☒ Slight ☐ Moderate ☐ Heavy Local Watershed NPS Pollution: ☒ No evidence ☐ Slight ☐ Moderate ☐ Heavy							Typical Width (m) <u>50</u> m wide Depth (m)/Velocity (m/sec) Transect <u>0.25</u> m/s <u>0.25</u> m/s <u>0.25</u> m/s
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank: <u>78</u> Right Bank: <u>78</u>				Hydrologic Modification Score (per FT 3101) ☐		High Water Mark: <u>1</u> + <u>2.8</u> = <u>3.8</u> (m) (above present water level) (present depth) (above bed)	
Artificially Impounded ☐ Yes ☒ No				Canopy Cover % ☒ Open ☐ Lightly Shaded (11-45%) ☐ Heavily Shaded ☐ Moderate Shaded (46-80%)		2.3 m deep <u>28</u> m deep <u>23</u> m deep	
Artificially ☒ No ☐ Mostly recovered, more sinuous Channelized: ☐ Some recovery ☐ Recent, severe							

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 Woody Debris (Snags) ☐ Undercut Banks / Roots ☐ Leaf Packs or Mat ☐ Aquatic Vegetation ☐ Rock or Shell Rubble.. ☐ Sand..... ☐ Mud / Muck / Silt ☐ Other ☐ Other ☐	# Times Sampled Woody Debris (Snags) ☐ Undercut Banks / Roots ☐ Leaf Packs or Mat ☐ Aquatic Vegetation ☐ Rock or Shell Rubble.. ☐ Sand..... ☐ Mud / Muck / Silt ☐ Other ☐ Other ☐	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>28.29</u> <u>6.68</u> <u>6.09</u> <u>78.2</u> <u>81</u> <u>0.04</u> <u>0.8</u> Mid: ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ Bottom: <u>23</u> <u>28.2</u> <u>6.64</u> <u>6.07</u> <u>77.9</u> <u>81</u> <u>0.04</u> <u>2.8</u> Meter ID: <u>132237</u>	Water Odors Normal ☒ Petroleum ☐ Sewage ☐ Chemical ☐ Other ☐ Water Sample Taken? ☒ Yes ☐ No Sample Preserved? ☒ Yes ☐ No Lot Number: <u>128070</u> Exp: <u>1/2/18</u> 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 ☐
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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:

*Large River system Only right bank sampled
☒ The antecedent hydrologic conditions have been met to my best knowledge.

SAMPLING TEAM

Nathan Mulkey / Stephen Stale

SIGNATURE:

Nathan Mulkey

DATE:

7/11/18

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: <u>Choctawhatchee River</u>					County: <u>Walton</u>		Date: <u>7/11/18</u>		Investigators: <u>Nathan Melby</u>	
STORET Station Number: <u>63NW0129</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	N	✓	
	2	N	✓			2	N	✓	
	3	N	✓			3	N	✓	
	4	N	✓			4	N	✓	
	5	N	✓	0		5	N	✓	0
	6	N	✓			6	N	✓	
	7	X	X			7	X	X	
	8	X	X			8	X	X	
	9	X	X			9	X	X	
10	1	N	✓		70	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	X	X			7	X	X	
	8	X	X			8	X	X	
	9	X	X			9	X	X	
20	1	N	✓		80	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	X	X			7	X	X	
	8	X	X			8	X	X	
	9	X	X			9	X	X	
30	1	N	✓		90	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	X	X			7	X	X	
	8	X	X			8	X	X	
	9	X	X			9	X	X	
40	1	N	✓		100	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	X	X			7	X	X	
	8	X	X			8	X	X	
	9	X	X			9	X	X	
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.				
	2	N	✓						
	3	N	✓						
	4	N	✓		Record "X" for points shallower than Secchi depth for which substrate cannot be seen or reached with the hand. No estimated rank.				
	5	N	✓	0					
	6	N	✓		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.				
	7	X	X						
	8	X	X		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%.				
	9	X	X						

Secchi depth	0.8
Estimated?	N
# points ranked 4-6	0
total points assessed	99
% points ranked 4-6	0

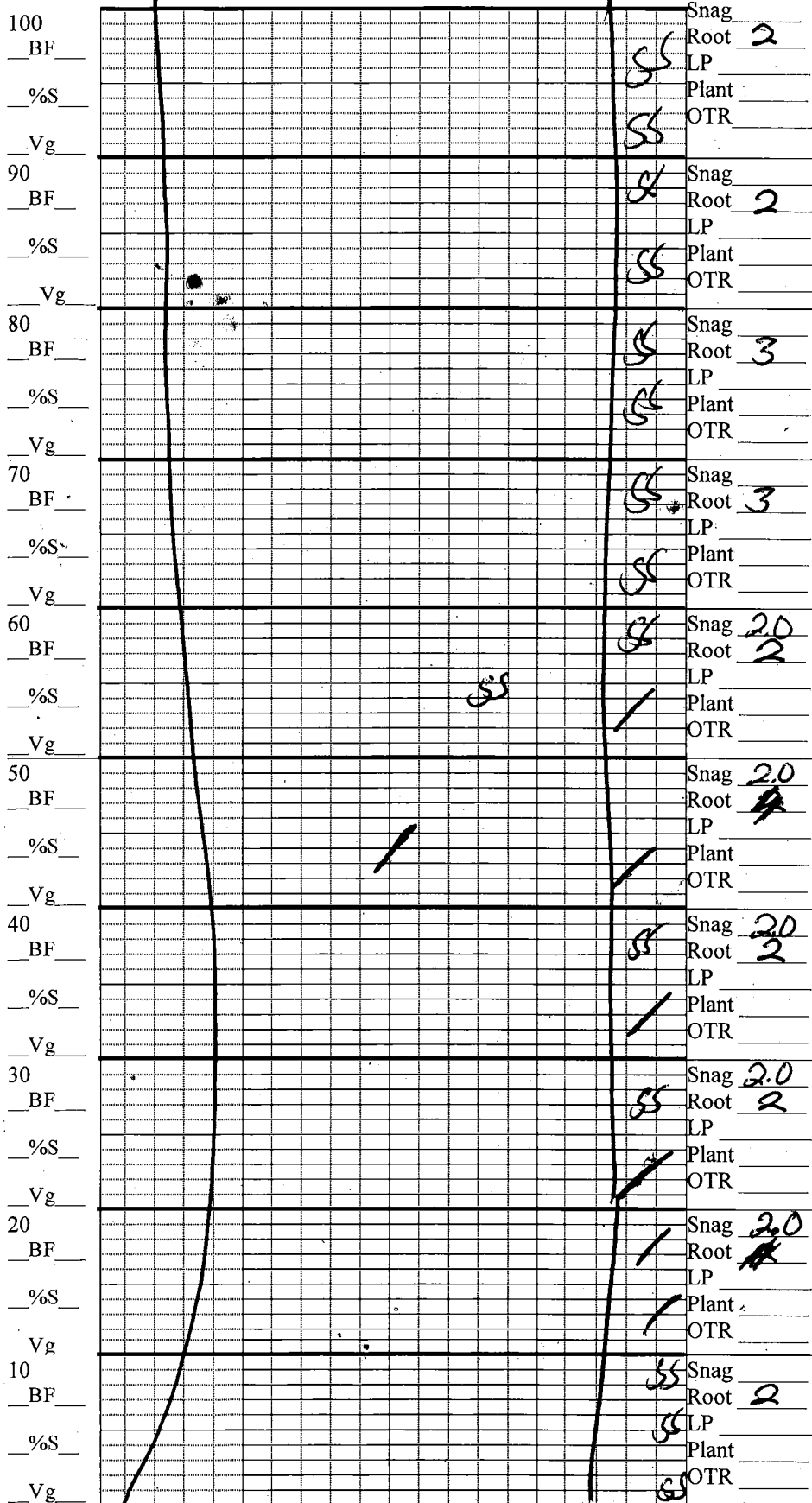
Check accompanying data collected at same site/date.	
Algal mat sample	
Linear Veg Survey	X
Habitat Assessment	X
SCI/Biorecon	X
Water sample	X
RQ: 2018-06-18-21	

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 78624
RPS ID 9063

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).



Left Bank

Downstream

1.0m High water

129
STORET: G3NW0052

Location: Choctawhatchee R.
abv Hwy 90 Holmes Creek

Project: SMP

Sampled By: NM/SS

Depth
Width

Substrates: Code key, draw proportionate habitat abundance.

☒ Snags 10 0.4%

☒ SS Roots/undercut banks 8 0.7%
1%

☐ Leaf Packs (or mats)

☐ Macrophytes

Depth
Width

Depth
Width

Depth
Width

Depth
Width

Depth
Width

Depth
Width

Depth
Width

Velocity: 1/4
Note where velocity measures were taken: 50 m

Habitat Smothering:
Note areas (on map) where sand or silt is something 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.

Date: 7/1/18

Average width 25 m
Average depth 2 m
WQ & chemistry taken @ 50 m

0 m Latt. 30.49858

0 m Long. 85.86232

100 m Latt. 30.49895

100m Long 85.86324

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

SAMPLING AGENCY: <i>FDEP NW ROC</i>		STORET STATION NUMBER: <i>G3NW0129</i>	DATE (MM/DD/YY): <i>07/11/18</i>	RECEIVING BODY OF WATER: <i>Chopt Bay</i>
REMARKS: <i>Large River System</i>	COUNTY: <i>Walton</i>	LOCATION: <i>Choctawhatchee River</i>	FIELD ID/NAME: <i>G3NW0129</i>	

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 <i>7</i>	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1
Substrate Availability <i>5</i>	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 <i>15</i>	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 <i>5</i> ----- Primary Score <i>32</i>	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 <i>1820</i>	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1
Bank Stability Right Bank <i>7</i> Left Bank <i>10</i>	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 <i>10</i> Left Bank <i>10</i>	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 <i>10</i> Left Bank <i>10</i> ----- Secondary Score <i>77</i>	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

107 109 TOTAL SCORE

SB10 ZD 78624

HA ZD 15292

Date: <i>7/11/18</i>	Analyst: <i>Nathan Mulky</i>	Signature: <i>Nathan Mulky</i>
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DEP FORM FD 9000-32: LINEAR VEGETATION SURVEY FIELD SHEET

Waterbody: Choctawhatchee R.	Date: 7/1/18	County: Washington	Storet Number: G3NW0120
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Analyst: h. mulkey Signature: _____

Comments: no veg

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.

	Meter Mark									Specime n collected (check)		Meter Mark									Specime n collected (check)
HERBACEOUS SPECIES	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90		90-100	HERBACEOUS SPECIES	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	
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"	X	X	X	X	X	X	X	X	X	X											
Indicate % cover macrophytes per section																					
0-5% Macrophyte Coverage	X	X	X	X</																	