



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2019

Data Qualified?

Yes / No

D.O.

WIN Station Name: Alligator Creek Upstream of SR 273

Date: 2/20/19
(mm/dd/yyyy)

WIN/ Field ID: G3WA0005

WBID: 123

Latitude: 30.819

County: Washington

ORG ID: 21FLWQA

Longitude: -85.5042

(Decimal Degrees)

Receiving Body of Water:

RQ- 2019-02-04-40
(Decimal Degrees)

Sampling Team Members						WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
Avril Wood-McGrath						X		X	X	X
Curtis Musson							X	X		

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

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

Water Level: Dry/ Pooled/ Low / <u>Normal</u> / High / Flooded									
Meter ID# B0#2					Matrix: <u>Fresh</u> / Marine / DI				
Photos: Yes / <u>No</u>					Flow: No Flow / Intestinal / <u>Flowing</u> / NA				
Tide: Rising/ Falling/ Slack/ <u>NA</u>					Tide Times: High <u> </u> Low <u> </u>				

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	9:41	2.4	0.7	0.5	7.46	74.2	5.91	0.02	53	15.16
CEN		0.7								

Biological Samples Collected: None <u>HA</u> <u>SCI</u> <u>RPS</u> Algae ID <u>LVS</u> LVI Other:									
SBIO ID Numbers: SBIO-ID: 79241 HA-ID: 15665 RPS-ID: 9249 Macrophyte-ID: NA 52m ² LIMS#: 2064226									

Parameter Suite	Parameter Methods	Preservation	Lot#	Expiration	pH Check
Preserved Nutrients	☒ W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP	☒ Ice ☒ H ₂ SO ₄	8274050	10/01/19	☒ <2
Metals	☒ W-ICPMS ☒ W-ICP	☒ Ice ☒ HNO ₃	8090070	3/2/19	☒ <2
Filtered Nutrients	☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter	☒ Ice	10827054		
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-BR-IC / 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-BacR ☐ PCR-GULL2 ☐ PCR-HF183 ☐ PCR-DG3 ☐ PCR-GFD	☐ Ice			
Tracers	☐ W-E8321-DI ☐ W-E8321-MS	☐ Ice			
Pesticides	☒ W-PSNP-TQ ☐ W-CT-CL-R ☒ W-E8321-DI ☐ W-PCL-SQ-R ☒ WE8321-MS ☐ W-CARB-AA	☒ Ice			
Phytoplankton	☐ DTY-QN-C ☐ PKD-QN-C	☐ Ice			

Notes:		WIN ID / FILED ID	
SCHA SCI Kit ROS/LVS Overcast		G3WA0005	
Signature: <i>Curtis Musson</i>		Location: Alligator Creek Upstream of SR 273	
Date: 2-20-19			

Contains: 1:1 H2SO4
Lot No. SA8274050
Expires: 10/01/19
See Safety Data Sheet (SDS)

Place Preservation
(If Available)

WIN ID / FILED ID

G3WA0005

Location

Alligator Creek Upstream of SR 273

LIMS EVENT ID: WAS-SECT-2019-02-20-03

WIN Import ID:

Enter Field Parameters, Verify Station ID In LIMS DMT: 3/3/19

QC Station ID, Field Parameters In LIMS DMT:

Scan/Save Field Sheets

Migrate Data to WIN:

Verify Data In WIN:

(Initials/Date)

(Initials/Date)

(Initials/Date)

(Initials/Date)

Entered by: ~~GA~~ 3/5/19

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

SRI0: 79241

G3WA0005 HUM 2.20.19

SAMPLING AGENCY: <u>IDEP</u>		STORET STATION NUMBER: <u>G3WA0003</u>	DATE (MM/DD/YY): <u>2.20.19</u>	RECEIVING BODY OF WATER: <u>Homes Creek</u>
REMARKS: <u>HA ID: 15665</u>	COUNTY: <u>Washington</u>	LOCATION: <u>Alligator creek upstream of SR 273</u>	FIELD ID/NAME: <u>G3WA0005</u>	

Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components Substrate Diversity <u>5</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 <u>5</u> 4 3 2 1
Substrate Availability <u>20</u>	Greater than 30% major productive habitat present at site <u>20</u> 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 <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>11</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. 15 14 13 12 <u>11</u>	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>9</u> Left Bank <u>9</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 <u>9</u>	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 woody root zone with raw, eroded areas. 3 2 1
Riparian Buffer Zone Width Right Bank <u>5</u> Left Bank <u>10</u>	Width of vegetation greater than 18 m 10 9	Width of vegetation > 12 to 18 m 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>7</u> Left Bank <u>10</u> ----- Secondary Score <u>70</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> 9	> 50% to 80% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). Some disruption in community observed. 8 <u>7</u> 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

TOTAL SCORE

126

Date: <u>2.20.19</u>	Analyst: <u>Curtis Musson</u>	Signature: <u>Curtis Musson</u>
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DEP Form FD 9000-4 Stream/River Habitat Assessment Sketch Sheet

Alligator cut

273

AWM 2.20.19

Location:

G3WAD00030005

Date:

2.20.19

Sampler:

Curtis Musson

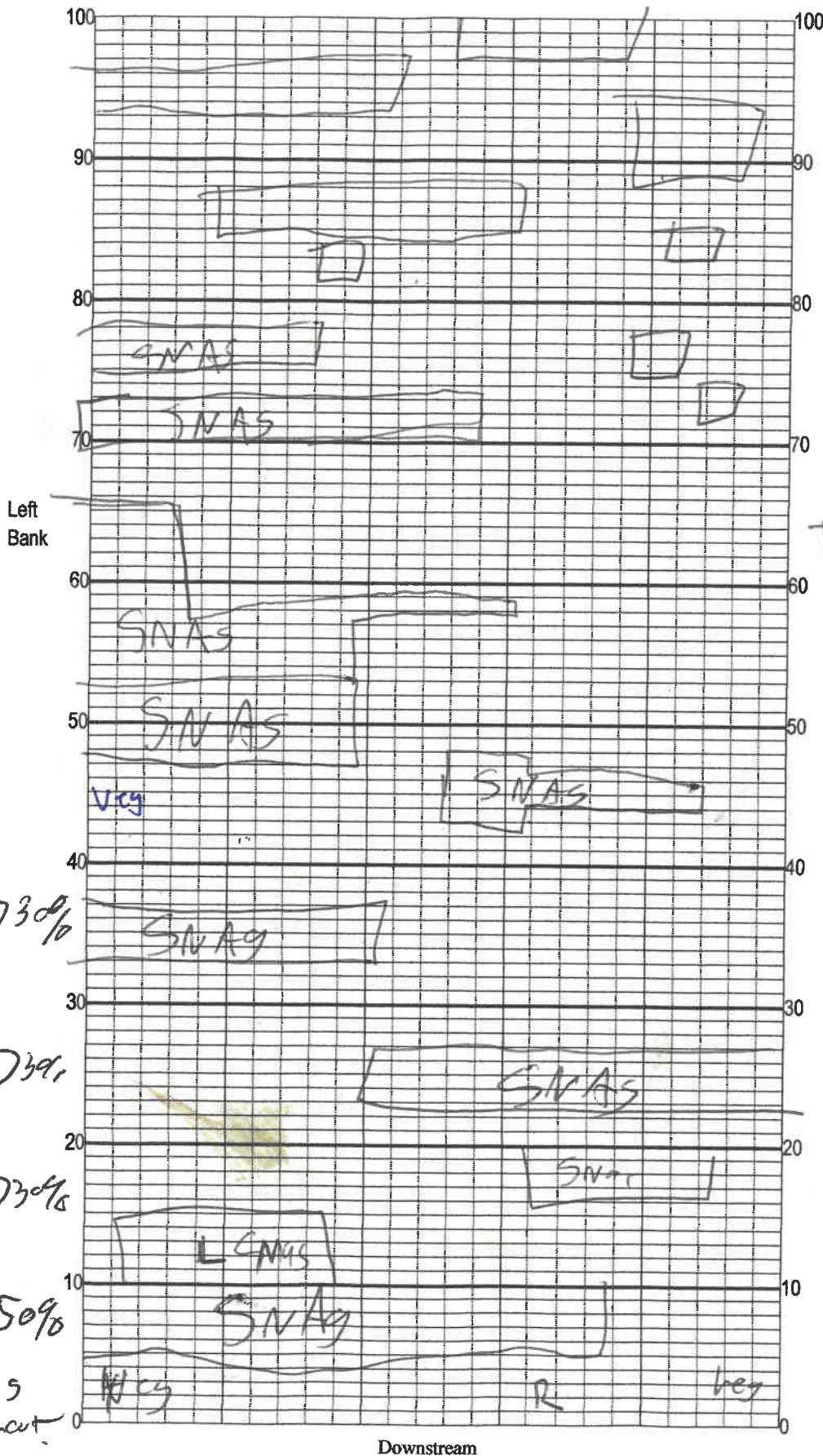
100 m: Latitude _____	
Longitude _____	
0 m: Latitude _____	
Longitude _____	
Substrates: Code key, draw proportionate habitat abundance. %	
☐ Snags	73%
☐ Roots/undercut banks	21%
☐ Leaf Packs (or mats)	21%
☒ Aquatic Macrophytes	21%
☐ Pools	total # observed = _____ # range expected = 5-1
Average width 17.4 m	
Average depth 0.5 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:

Metermark	Width	Velocity Reading
0		2.6, 2.7
50		2.4 (x=2.6)
100		4.5, 4.5
80		

$\bar{x} = 4.5 \text{ sec}$

0.38 m/s



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

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

SAMPLE ID 79241 ORG ID 21Flwaq LATITUDE 30.819
 COUNTY Washington STORET # G3WA0005 LONGITUDE -85.5042
 DATE 2.20.19 TIME 11:57 SAMPLING AGENCY FDEP
 SITE NAME Alligator at SR 273
 FIELD ID/NAME G3WA0005 RECEIVING BODY OF WATER Horns creek

RIPARIAN ZONE / STREAM FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category): Water

Forest/Natural	Silviculture	Field/Pasture	Agricultural	Residential	Commercial	Industry	Other (Specify)
<u>33%</u>	<u>17%</u>	<u>12%</u>	<u>32%</u>	<u>4%</u>	<u>0.1%</u>	<u>0.4%</u>	<u>1%</u>

Landscape Development Intensity Index (LDI) 2.8

Local Watershed Erosion (select one): ☐ None ☒ Slight ☐ Moderate ☐ Heavy

Local Watershed NPS Pollution: ☐ No evidence ☐ Slight ☐ Moderate ☒ Heavy

Width of Riparian Vegetation (m) on Each Buffer Side
 Left Bank: >18 Right Bank: 6

Hydrologic Modification Score (per FT 3101) 3-4

High Water Mark: 1.0 + 0.7 = 1.7
 (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%)

Typical Width (m) Depth (m)/Velocity (m/sec) Transect
17.4 m wide
0.38 m/s
0.7 m deep

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>>30</u>	<u>10</u>	
Undercut Banks / Roots	<u><1</u>	<u>2</u>	
Leaf Packs or Mat	<u><1</u>	<u>1</u>	
Aquatic Vegetation	<u><1</u>	<u>2</u>	
Rock or Shell Rubble			
Sand			
Mud / Muck / Silt		<u>5</u>	
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>15.16</u>	<u>5.91</u>	<u>7.46</u>	<u>74.2</u>	<u>53</u>	<u>0.02</u>	<u>0.5</u>
Mid								☐ VOB
Bottom								TOTAL DEPTH <u>0.7</u>

Meter ID: Bio #2

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: See Field sheet Exp: _____

Algae Sample Taken? ☐ Yes ☒ No
Sample Preserved? ☐ Yes ☒ No
 Lot Number: _____ Exp: _____

Clarity Clear ☐ Slightly Turbid ☒
 Turbid ☐ Opaque ☐

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:
☒ The antecedent hydrologic conditions have been met to my best knowledge.

SAMPLING TEAM Curtis Mussen / Avrilwood McGrath

SIGNATURE: Curtis Mussen

DATE: 2.20.19

Entered by: ~~del~~ 3/5/19

SRI0: 79241 RRS: 9249

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: 63WA0005					County: Washington		Date: 2.20.19		Investigators: Curtis Musson / Ann Grath	
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		76		5	X	✓		
	6	N				6	X	✓		
	7	N				7	X	✓		
	8	N				8	X	✓		
	9	N				9	X	✓		
10	1	N			70	1	N			
	2	N				2	N			
	3	N				3	N			
	4	N				4	N			
	5	N		65		5	N			
	6	N				6	N			
	7	N				7	N			
	8	N				8	N			
	9	N				9	N			
20 ✓	1	N			80	1	N			
	2	N				2	N			
	3	N				3	N			
	4	N				4	N			
	5	N		61		5	N			
	6	N				6	N			
	7	N				7	X	✓		
	8	N				8	X	✓		
	9	N				9	X	✓		
30	1	N			90	1	N			
	2	N				2	N			
	3	N				3	N			
	4	N				4	N			
	5	N		55		5	N			
	6	N				6	N			
	7	N				7	N			
	8	N				8	X	✓		
	9	N				9	X	✓		
40	1	N			100	1	N			
	2	N				2	N			
	3	N				3	N			
	4	N				4	N			
	5	N		47		5	N			
	6	N				6	N			
	7	N				7	N			
	8	N		96		8	N			
	9	N		49		9	N			
50 X=8	1	X	✓		50	1	X	✓		
	2	X	✓			2	X	✓		
	3	X	✓			3	X	✓		
	4	X	✓			4	X	✓		
	5	X	✓			5	X	✓		
	6	X	✓			6	X	✓		
	7	X	✓			7	X	✓		
	8	X	✓			8	X	✓		
	9	N	✓			9	N	✓		

STORET Station Number: 63WA0003 Ann

0005 2.20.19

Secchi depth	25
Estimated?	no

# points ranked 4-6	0
total points assessed	80
% points ranked 4-6	0

Check accompanying data collected at same site/date.

Algal mat sample	no
Linear Veg Survey	yes
Habitat Assessment	yes
SCI/Biorecon	yes
Water sample	yes

RQ-2019-02-04-40

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

X=19
99-19=80

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%.

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

Analyst: <u>Artis Hanson</u>	Signature: <u>Curtis</u>
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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.

[illegible]

Revision Date: January 2017

Florida Department of Environmental Protection

Central Laboratory Submittal Form

Customer: WAS-SECT

Project ID: SMP

Requester: Curtis Musson

Field Report Prepared By: Anvil Wood-McGrathCollected By: Curtis Musson / Anvil Wood-McGrathSampling Agency: FDEP

Location <u>AWM 2.20.19</u>		☐ Comp		Collection (comp begin or grab)		☒ Grab		Date <u>2.20.19</u> Time <u>9:41</u>		Eastern ☒ Composite end		Bottle Group(s)	
Field ID <u>G3WA0005</u>		Matrix (type, e.g., Salt, Fresh, etc)		Diss. Oxygen		☐ mg/L		Total Res. Chlorine		Date		Time	
WIN/STORET # <u>G3WA0005</u>		Temp (C) <u>15.16</u>		pH <u>5.91</u>		☐ % sat		(mg/L)					
Latitude ☐ dd ☐ dms		Longitude ☐ dd ☐ dms		Salinity (ppt) <u>0.02</u>		Sample Depth <u>0.3</u>		☐ ft ☒ m		Sp. Conductance (umho/cm) <u>53</u>		A	
Location <u>Alligator Creek upstream of SR 273</u>													
Field ID <u>G3WA0005</u>		Matrix (type, e.g., Salt, Fresh, etc)		Diss. Oxygen		☐ mg/L		Total Res. Chlorine		Date		Time	
WIN/STORET # <u>G3WA0005</u>		Temp (C) <u>15.16</u>		pH <u>5.91</u>		☐ % sat		(mg/L)					
Latitude ☐ dd ☐ dms		Longitude ☐ dd ☐ dms		Salinity (ppt) <u>0.02</u>		Sample Depth <u>0.3</u>		☐ ft ☒ m		Sp. Conductance (umho/cm) <u>53</u>		B	
Location <u>Alligator Creek upstream of SR 273</u>													
Field ID		Matrix (type, e.g., Salt, Fresh, etc)		Diss. Oxygen		☐ mg/L		Total Res. Chlorine		Date		Time	
WIN/STORET #		Temp (C)		pH		☐ % sat		(mg/L)					
Latitude ☐ dd ☐ dms		Longitude ☐ dd ☐ dms		Salinity (ppt)		Sample Depth		☐ ft ☐ m		Sp. Conductance (umho/cm)		Bottle Group(s)	
Location													
Field ID		Matrix (type, e.g., Salt, Fresh, etc)		Diss. Oxygen		☐ mg/L		Total Res. Chlorine		Date		Time	
WIN/STORET #		Temp (C)		pH		☐ % sat		(mg/L)					
Latitude ☐ dd ☐ dms		Longitude ☐ dd ☐ dms		Salinity (ppt)		Sample Depth		☐ ft ☐ m		Sp. Conductance (umho/cm)		Bottle Group(s)	
Location													
Field ID		Matrix (type, e.g., Salt, Fresh, etc)		Diss. Oxygen		☐ mg/L		Total Res. Chlorine		Date		Time	
WIN/STORET #		Temp (C)		pH		☐ % sat		(mg/L)					
Latitude ☐ dd ☐ dms		Longitude ☐ dd ☐ dms		Salinity (ppt)		Sample Depth		☐ ft ☐ m		Sp. Conductance (umho/cm)		Bottle Group(s)	
Location													
Field ID		Matrix (type, e.g., Salt, Fresh, etc)		Diss. Oxygen		☐ mg/L		Total Res. Chlorine		Date		Time	
WIN/STORET #		Temp (C)		pH		☐ % sat		(mg/L)					
Latitude ☐ dd ☐ dms		Longitude ☐ dd ☐ dms		Salinity (ppt)		Sample Depth		☐ ft ☐ m		Sp. Conductance (umho/cm)		Bottle Group(s)	
Location													
Field ID		Matrix (type, e.g., Salt, Fresh, etc)		Diss. Oxygen		☐ mg/L		Total Res. Chlorine		Date		Time	
WIN/STORET #		Temp (C)		pH		☐ % sat		(mg/L)					
Latitude ☐ dd ☐ dms		Longitude ☐ dd ☐ dms		Salinity (ppt)		Sample Depth		☐ ft ☐ m		Sp. Conductance (umho/cm)		Bottle Group(s)	
Location													

Relinquished By: <u>[Signature]</u>	Date/Time <u>2/20/19 16:40</u>	Shipping Method <u>HD</u>	Number of Coolers Shipped: <u>1 cooler</u>	Received By: <u>[Signature]</u>	Date/Time <u>2/20/19 @ 16:40</u>
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4 Sci Jugs

ca

Group: A	Bottle Type:	P-1L	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab	
	ALKALINITY TURBIDITY W-CL-IC W-COLOR W-F W-SO4-IC W-TDS W-TSS						
Group: A	Bottle Type:	BP-1L	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab	
	CHLSUITE-W						
Group: A	Bottle Type:	P-250ML-WO-THI	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab	
	ECOLI-18QT						
Group: A	Bottle Type:	BG-500ML	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab	
	W-E8321-DI W-E8321-MS						
Group: A	Bottle Type:	P-500ML	# of Bottles: 1	Preservative:	HNO3	Enter Number of Bottles Sent to Lab	
	W-ICP W-ICPMS			HNO3 LOT# NA8080070 EXP: 03/21/19			
Group: A	Bottle Type:	P-500ML	# of Bottles: 1	Preservative:	ICE And H2SO4	Enter Number of Bottles Sent to Lab	
	W-NH3 W-NO2NO3 W-S-A-TP W-TKN W-TOC			H2SO4 LOT# SA8274050 EXP: 10/01/2019			
Group: A	Bottle Type:	P-125ML	# of Bottles: 1	Preservative:	FILTER-ICE	Enter Number of Bottles Sent to Lab	
	W-PO4-F						
Group: A	Bottle Type:	BG-1L	# of Bottles: 4	Preservative:	ICE	Enter Number of Bottles Sent to Lab	
	W-PSNP-TQ						
Group: B	Bottle Type:	PT-50ML	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab	
	ALGAL_ID						
Group: B	Bottle Type:	PJ-2L	# of Bottles: 2	Preservative:	Formalin	Enter Number of Bottles Sent to Lab	

Group: B

Bottle Type:

PJ-2L

of Bottles: 2

Preservative:

Formalin

Enter Number of Bottles Sent to Lab

4

MI-FW-QLDC

* two bottles added in field

2019-02-40-41

CALIBRATION AND VERIFICATION LOG (FDEP SOP FT 1000-FT 1500, FD 1000-FD 4000)

Boldly "X" this box if there is questionable data on this form.

Meter ID: Bio #2

RQ- 2019-02-04-40

Project: SMP / SCF #1

SCF #2

- Notes:** (1) Always wait for meter to stabilize before recording any readings.
 (2) Report all digits displayed. Do not round before reporting measurements. (See special instructions for depth).
 (3) For Calibrations, record calibrated meter reading. Do not record initial meter reading before calibration.

Circle/Fill In: Lab Calibration or Calibration/Verification on Site

Temperature (Quarterly) FT 1400

Date of Last Temperature Verification

DO DEP SOP FT 1500	Name	Date	Time CT-ET	Temp	D.O. Chart mg/L	Meter D.O. mg/L	% DO	Probe Charge	Probe Gain	Pass / Fail	Lab / Field
Calibr.	Curtis Musson	2/20/2019	702	19.45	9.15	9.19	100.0	61.4	-	P/F	L/F
ICV	Curtis Musson	2/20/2019	704	19.43	9.202	9.16	99.5	61.4	-	P/F	L/F
CCV	Curtis Musson	2/20/2019	1713	20.05	9.898	9.38	92.3	67.6	-	P/F	L/F
CCV										P/F	L/F

DO Acceptance criteria from Table ± 0.3 mg/L.

Optical: DO gain range 0.85 to 1.15; DO charge N/A.

Rapid-Pulse Sensors: DO Gain Range 0.7 to 1.4; DO Charge Range 25-75.

Steady-state & Galvanic Sensors: DO Gain & Charge N/A.

Spec. Cond. FT 1200	Name	Date	Time CT-ET	Lot #	Expir. Date	Standard μ mhos/cm	Meter Reading μ mhos/cm	Pass / Fail	Lab / Field
Calibr.	Curtis Musson	2/20/2019	706	180403A	4-19	1000	1000	P/F	L/F
ICV	Curtis Musson	2/20/2019	707	180403A	4-19	1000	998	P/F	L/F
CCV	Curtis Musson	2/20/19	1716	1805F81	5-20	100	104	P/F	L/F
CCV								P/F	L/F

Conductivity Acceptance criteria $\pm 5\%$

pH DEP SOP FT 1100	Name	Date	Time CT-ET	Lot #	Expir. Date	pH Buffer SU	Meter reading SU	mV	Pass / Fail	Lab / Field
Calibr.	Curtis Musson	2/20/2019	711	180403C	6/2019	7.0	7.00	-9.8	P/F	L/F
Calibr.	Curtis Musson	2/20/2019	715	180621D	07/2019	4.0	4.00	161	P/F	L/F
Calibr.	Curtis Musson	2/20/2019	718	180621F	01/2020	10.0	10.01	-181	P/F	L/F
ICV	Curtis Musson	2/20/2019	722	180621D	7/19	4.0	4.03	160	P/F	L/F
CCV	Curtis Musson	2/20/2019	1719	180403C	6/2019	7.00	6.95	-6	P/F	L/F
CCV									P/F	L/F

pH Acceptance criteria ± 0.2 SU; mV pH 7 Range 0 ± 50 ;mV pH 4 Range $+180 \pm 50$;mV pH 10 Range -180 ± 50 ;

If mV are recorded: slope from 7 to 10 _____, slope from 4 to 7 _____ (both must be between 165 and 180 mV)

Is meter equipped with depth sensor? Yes / No If yes, list date of last quarterly depth verification

Depth Sensor (Daily Calibration & ICV)	Name	Date	Time CT-ET	Calibrated Value (0.00 or Offset), meters	ICV Value meters	Pass / Fail	Lab / Field
Pressure mode in air	Curtis Musson	2/20/19	709	0.00	0.00	P/F	L/F

Report two decimal places. Round numbers ≤ 4 down, ≥ 5 up. ICV acceptance criteria $\pm 5\%$ or ± 0.05 m, whichever is greater.

COMMENTS: