



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

February 2017

PAGE 1 OF 1

Data Qualified?

Yes / No

STORET Station Name: Rhuda Br @ 192ND Ave

Date: 10-17-2017

(mm/dd/yyyy)

STORET Station ID: 21030146

WBID: 3648

Latitude: 29.83

(Decimal Degrees)

County: Alachua - 2017-10-16-50 ORG ID: _____

Longitude: 82.3344

(Decimal Degrees)

Receiving Body of Water: Sunshine Lake Field ID: G1NE062510172017

Sampling Team Members					WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check	Sampling Equipment				
B. DAVIS P. O'Connor					X	X	X	X	X	☒ Sample Container	☐ Van Dorn	☐ Pole		
										☐ Carboy	☐ Syringe			
										☐ Dipper	☐ Other			
										Equipment ID <u>Ortho kit #2</u>				
Collection Method														
☒ Wading					☐ Via Boat									
☐ From Shore					☐ Canoe/Kayak									
☐ Other (note below)					☐ Electric Motor									
					☐ Gasoline Motor									
Water Level: Dry / Pooled / Low / <u>Normal</u> / High / Flooded										Matrix: <u>Fresh</u> / Marine / DI				
Meter ID# <u>YSI#3</u>					Photos: Yes / <u>No</u>					Tide Falling: Yes / No / <u>NA</u>				
Time Zone	Time	Sample Depth (m)	Total Depth (m)	DO (mg/L)	DO (%SAT)	pH	Salinity (ppt)	Secchi Disk (m)	Sp COND (µmhos/cm)	Temp (°C)				
EST	1040	0.2	0.3	6.4	73	6.3	0.03	0.35	76	22.2	BP			
CEN								VOB						
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: _____ RPS-ID: _____ Macrophyte-ID: _____ LIMS#: _____														
Parameter Suite		Parameter Methods					Preservation	Acid Lot#	Expiration	pH Check				
Preserved Nutrients		☒ W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP					☒ Ice ☒ H ₂ SO ₄	<u>SA7233030</u>	<u>08-21-18</u>	☒ <2				
Metals		☐ W-ICPMS ☐ W-ICP					☐ Ice ☐ HNO ₃			☐ <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-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 ☐ Enterococcus ☐ PCR-FILTER					☐ Ice							
Tracers		☐ W-LCMS-DU ☐ W-UHERB-AA					☐ Ice							
Pesticides		☐ W-PSNP-TQ ☐ W-AHERB-AA ☐ W-PYR-AA-R ☐ W-LCMS-DU					☐ Ice							
		☐ W-PCL-SQ-R ☐ W-UHERB-AA ☐ W-GLYPH					☐ Other							

Contains 1:1 Sulfuric Acid
Lot No.: SA7233030
Expires: 08/21/18
See Safety Data Sheet (SDS)

STICKER(S) HERE (b)(6)

Notes: DO failed CCV

Field ID: G1NE062510172017

Rhuda Branch @
192 Ave

STORET

21030146

Signature: P. O'Connor

Date: 10-17-17

Field Parameters Entered into LIMS: _____

Field Parameters QC in LIMS: BP 10/23/17

Date Migrated to STORET: _____

Field Sheets Scanned/Saved: _____

78059
NEP Form FD 9000-5 Stream/River Habitat Assessment Field Sheet

Field ID:



G1NE0625 10172017

Rhuda Branch @
192 Ave

STORET:



21030146

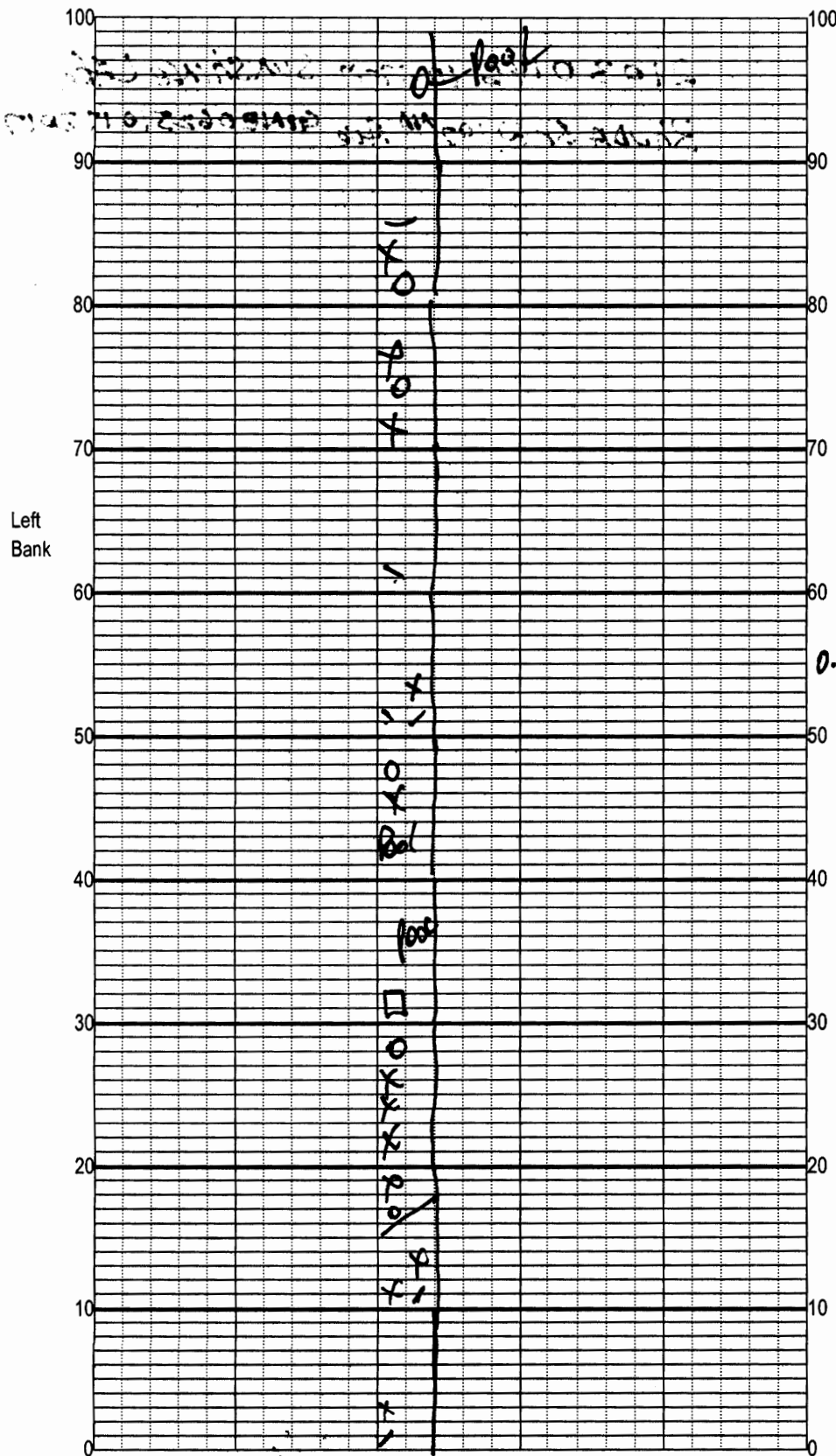
STORET STATION NUMBER: 21030146	DATE (MM/DD/YY): 10-17-17	RECEIVING BODY OF WATER: SUNSHINE LAKE
LOCATION: RHUDA BR @ 192ND AVE		FIELD ID/NAME: G1NE062510172017

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 8	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 16	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 space occurring: > 1 m/sec <0.05 0.04 0.03 0.01 <0.01 5 4 3 2 1
Habitat Smothering 10 Primary Score 48	Adequate number of stable pools (1-2 per 42 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 5 Left Bank 5	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 10 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 10 Left Bank 10 Secondary Score 90	10 9	8 7 6	5 4	3 2 1

118 TOTAL SCORE

Date: 10-17-17	Analyst: B DAVIS, PO'Connor	Signature: <i>[Signature]</i>
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DEP Form FD 9000-4 Stream/River Habitat Assessment Sketch Sheet



Location: Phudab @ 192
 Date: 10-17-17
 Sampler: POA

100 m: Latitude _____	
Longitude _____	
0 m: Latitude _____	
Longitude _____	
Substrates: Code key, draw proportionate habitat abundance. %	
☒	Snags _____
☒	Roots/undercut banks _____
☒	Leaf Packs (or mats) _____
☒	Aquatic Macrophytes _____
☒	<u>Rock</u> _____
☐	_____
☐	total # observed = _____
☐	# range expected = _____
Average width <u>7.3</u> m	
Average depth <u>0.3</u> m	
Velocity measured at <u>50</u> meter mark.	
WQ & chemistry taken at <u>0</u> 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:

<2 M of Macrophytes was observed while doing the LVS? YES or NO

0.25 n/s
 4% Snag
 5.5% Root
 12% Rock
 2.5% Leaf

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

Rhuda Branch @
192 Ave

STORET :

21030146

BAR VEGETATION SURVEY FIELD SHEET

County: Alachua

Store Number: 21030146

Signature:

Worm

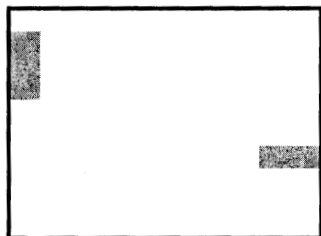
Instructions: Note taxa growing in the water with a checkmark if present, "D" if dominant, and "C" if codominant (dominance only if 1 m² of taxa present). Note in the boxes below if no dominant are selected, and note total macrophyte abundance rank for each section. Only the most common taxa are listed, so use blank spaces for additional taxa names.

[illegible]

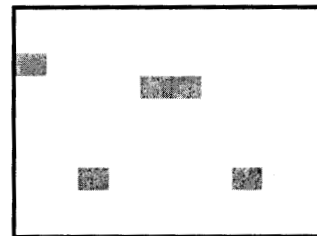
FDEP FORM FD 9000-32 LINEAR VEGETATION SURVEY FIELD SHEET

Percent Cover Categories for macrophytes in a 10 m segment of a stream 5 m wide

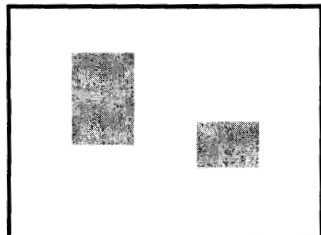
5% Macrophyte Coverage



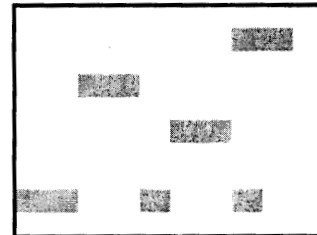
5% Macrophyte Coverage



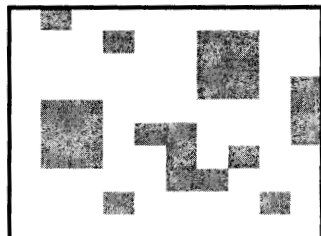
10% Macrophyte Coverage



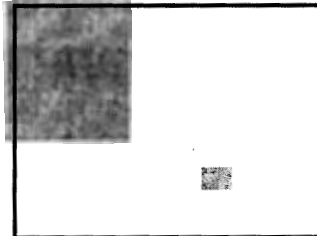
10% Macrophyte Coverage



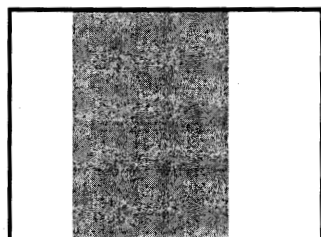
25% Macrophyte Coverage



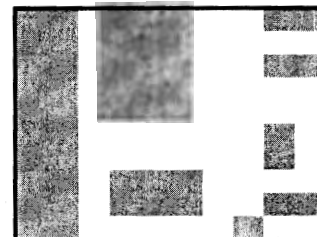
25% Macrophyte Coverage



50% Macrophyte Coverage



50% Macrophyte Coverage



78059

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

Field ID:



G1NE0625 10172017

Rhuda Branch @
192 Ave

STORET:



21030146

LATITUDE

29.83

LONGITUDE

82.3341

SAMPLING AGENCY

DEAK Ned Roc

RECEIVING BODY OF WATER

SUNSHINE LAKE

Meter ID:

YSF #3

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) ☐

40

20

10

15

15

Landscape Development Intensity Index (LDI)

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: 718

Right Bank: 718

Hydrologic Modification Score (per FT 3101)

Artificially Impounded
☐ Yes ☒ No

High Water Mark: 2.0 + 0.3 = 2.3
(m) (above present water level) (present depth) (above bed)

Typical Width (m) Depth (m) Velocity (m/sec) Transect

2 m wide

0.25 m/s

0.3 m deep

Artificially ☒ No ☐ Mostly recovered, more sinuous
Channelized: ☒ Some recovery ☐ Recent, severe

Canopy Cover %

☐ Open

☒ Heavily Shaded

☐ Lightly Shaded (11-45%)

☐ 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

INVERT PERI
% Coverage # Times # Times
Sampled Sampled

Woody Debris (Snags)

4

5

1

Undercut Banks / Roots

5.5

5

Leaf Packs or Mat

2.5

5

Aquatic Vegetation

Rock or Shell Rubble

Sand

290

5

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: 0.2 22.2 6.3 6.4 73 76 0.03 0.35

Mid: 0.2 22.2 6.3 6.4 73 76 0.03 0.3

Bottom: 0.2 22.2 6.3 6.4 73 76 0.03 0.3

System Type: Stream ☒ Lake ☐ Wetland ☐ Estuary ☐ Other (Specify) ☐

Water Odors Normal ☒ Petroleum ☐
Sewage ☐ Chemical ☐ Other ☐

Water Surface Oils Normal ☒ Sheen ☐
Globs ☐ Slick ☐ Other ☐

Water Sample Taken? ☒ Yes ☐ No
Sample Preserved? ☒ Yes ☐ No

Color Tannic ☒ Green (Algae) ☐
Clear ☐ Other (Specify) ☐

Lot Number: SA 7233020 Exp: 08-21-18

Algae Sample Taken? ☐ Yes ☒ No
Sample Preserved? ☐ Yes ☒ No

Clarity Clear ☒ Slightly Turbid ☐
Turbid ☐ Opaque ☐

AMBIENT FIELD CONDITIONS / NOTES:

ABUNDANCE

Not Obs. Rare Common Abundant

Periphyton:

☐ ☒ ☐ ☐

Fish:

☐ ☐ ☒ ☐

Aquatic Plants:

☒ ☐ ☐ ☐

Iron/Sulfur Bacteria:

☐ ☒ ☐ ☐

Hydrologic Disturbance Scoring ☐ 1-2 ☐ 3-4 ☐ 5-6 ☐ 7-8 ☐ 9-10

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

SAMPLING TEAM

B Davis, P. O'Connor

SIGNATURE:

P. O'Connor

10-17-17

7805V

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: Rhuda Br @ 192ND Ave County: Alachua Date: 10-17-17 Investigators: B. Davis, P. O'Connor

STORET Station Number: 21030146

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					2				
	3					3				
	4					4				
	5			96		5			96	
	6					6				
	7					7				
	8					8				
	9					9				
10	1	N			70	1	N			
	2					2				
	3					3				
	4					4				
	5			94		5			95	
	6					6				
	7					7				
	8					8				
	9					9				
20	1	N			80	1	N			
	2					2				
	3					3				
	4					4				
	5			96		5			93	
	6					6				
	7					7				
	8					8				
	9					9				
30	1	N			90	1	N			
	2					2				
	3					3				
	4					4				
	5			96		5			93	
	6					6				
	7					7				
	8					8				
	9					9				
40	1	N			100	1	N			
	2					2				
	3					3				
	4					4				
	5			96		5			96	
	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.					
	2				Record "X" for points shallower than Secchi depth for which substrate cannot be seen or reached with the hand. No estimated rank.					
	3				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.					
	4				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%.					
	5			96						
	6									
	7									
	8									
	9									

Secchi depth 0.35
Estimated? ☐

points ranked 4-6 0
total points assessed 94
% 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-2017-10-16-50

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

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

Only "X" in box is qualified person on this page.

Meter YSI #3 RQ- 2017-10-16-50 Project SUWANNEE 3

- Notes: (1) Numbers ≤ 4 , are rounded down; numbers ≥ 5 are rounded up (e.g., 5.15 becomes 5.2).
 (2) Always wait for meter to stabilize before recording any readings.
 (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 10/10/2017

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.	PO eqm	10-17-17	0655	23.4	8.51	8.51	100.0	48.2	0.88217	P	C
ICV	↓	↓	0700	23.5	8.49	8.50	100.0	48.2	0.88217	P	C
CCV	B. Davis	10/17/17	1458	22.5	8.46						
CCV			1425	23.7	8.46	6.72	79.4	45.1	0.908	F	L

Report DO mg/L with one decimal figure and DO % saturation as a whole number with no decimals.

DO Acceptance criteria from Table ± 0.3 mg/L.

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

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

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.	PO eqm	10-17-17	0705	170720A	08-2018	1000	1000	P	C
ICV	↓	↓	0708	170720B	08-2018	100	101	P	C
CCV	B. Davis	10/17/17	1415	170720A	8/18	1000	1004	P	L
CCV									

Report specific conductance as a whole number with no decimal figure.

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.	PO eqm	10-17-17	0712	2707656	06-2019	7.0	7.00	-26.5	P	C
Calibr.	↓	↓	0717	2707722	06-2019	4.0	4.00	145.6	P	C
Calibr.	↓	↓	0720	2704798	09-2018	10.0	9.99	-193.8	P	C
ICV	↓	↓	0722	2707656	06-2019	7.0	7.05	-27.8	P	C
CCV	B. Davis	10/17/17	1417	2707722	6/19	4.0	7.04	142.7	P	L
CCV										

Report pH with one decimal place; pH Acceptance criteria ± 0.2 SU;

mV pH7 Range 0 $\pm$ 50;

mV pH 4 Range +180 $\pm$ 50;

mV pH 10 Range -180 $\pm$ 50;

Slope from 7 to 10 and 4 to 7 must be between 165 and 180mV

Depth (Quarterly)

Date of Last Depth Verification 10-10-2017

Depth Sensor (Daily)	Name	Date	Time CT-ET	Zero the Sensor	ICV Value	Pass / Fail	Lab / Field
Pressure mode in air				0.000			

ICV acceptance criteria $\pm 5\%$ or $\pm 0.05m$, whichever is greater

NF 10/23/17 BD 10/23/17