



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2017

PAGE 1 OF 1

Data Qualified?
Yes / No

STORET Station Name: McCoy @ McDuff Date: 5/1/2017
STORET Station ID: 2003088 WBID: 2257 Latitude: 30.317139
County: Duval RQ: 2017-04-24-28 ORG ID: 21 FLA Longitude: 81.7055
Receiving Body of Water: _____ Field ID: _____

Sampling Team Members				WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check	Sampling Equipment			
Jeremy Parrish Nico Freeman				XX	XX	X	XX	XX	☒ Sample Container	☐ Van Dorn	☐ Pole	
									☐ Carboy	☐ Syringe	☐ Other	
									☐ Dipper	☐ Kit # 3		
									Collection Method			
									☐ Wading	☐ Via Boat		
									☒ From Shore	☐ Canoe/Kayak		
									☐ Other (note below)	☐ Electric Motor		
										☐ Gasoline Motor		
Water Level: Dry / Pooled / <u>Low</u> / Normal / High / Flooded				Matrix: <u>Fresh</u> / Marine / DI								
Meter ID# <u>YSI #4</u>				Photos: <u>Yes</u> / No				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 (umhos/cm)	Temp. (C°)		
EST	1230	0.05	<u>0.10</u>	3.64	45.5	7.47	0.23		480	27.37		
CEN			0.10									
Biological Samples Collected: None <u>HA</u> <u>SCI</u> <u>RPS</u> <u>Algae ID</u> <u>LVS</u> <u>LVI</u> 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			☒ <2				
Metals	☐ W-ICPMS ☐ W-ICP				☒ Ice ☐ HNO ₂			☐ <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-CI-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 Coli ☐ F Coli ☐ Enterococcus ☐ PCR-FILTER				☐ Ice							
Tracers	☐ W-SOCC ☐ W-UHERB-AA ☒ W-AHERB-AA				☐ Ice							
Pesticides	☐ W-PSNP-TQ ☐ W-AHERB-AA ☐ W-PYR-AA-R				☐ Ice							
	☐ W-PCL-SQ-R ☐ W-UHERB-AA ☐ W-GLYPH				☐ Other							

Notes: Ha RPS LVS
Upstream approx 50 meters

Place Label Here
(If Available)

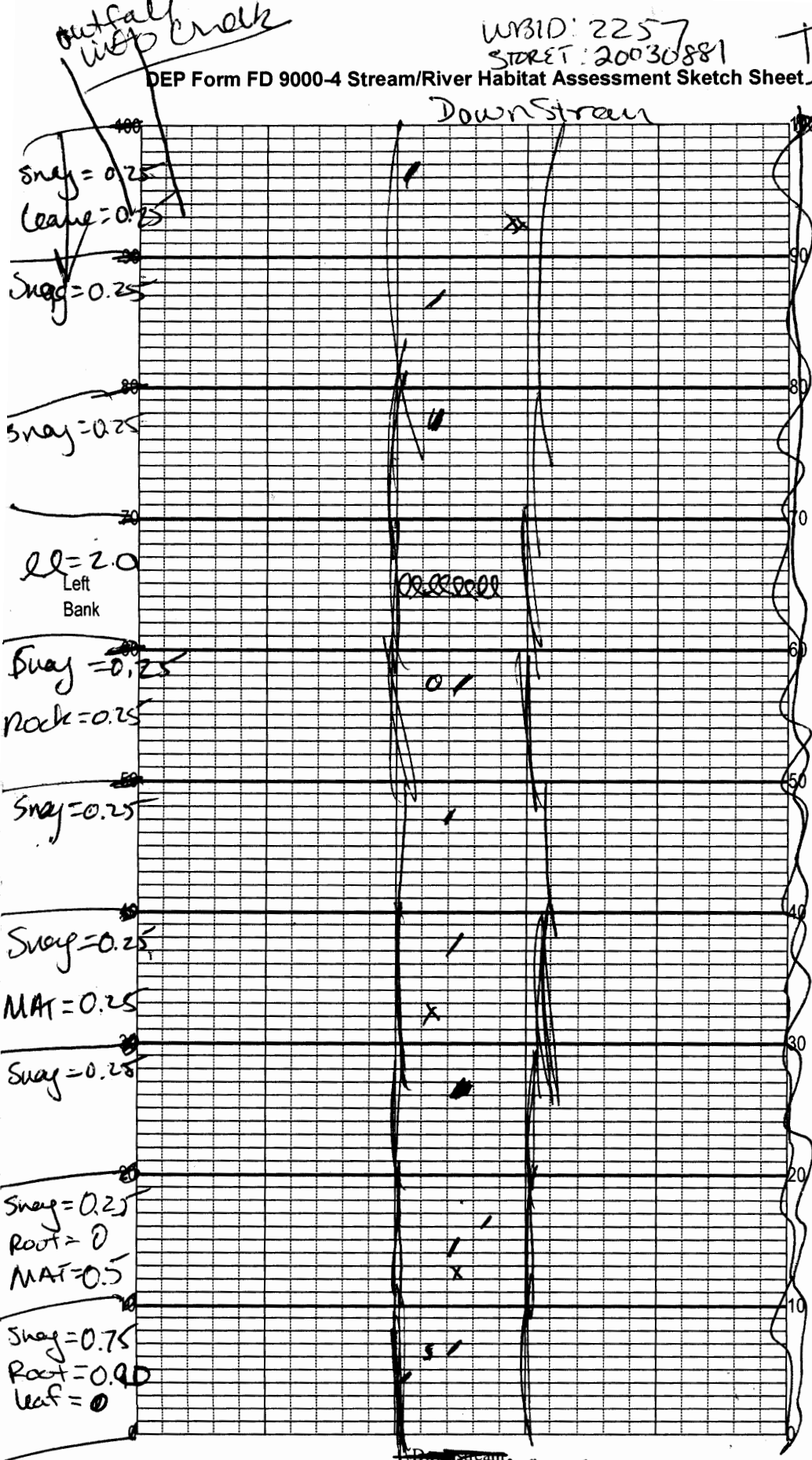
Signature: [Signature] Date: 5/1/2017

Field Parameters Entered into LIMS: [Signature] (Initials/Date) Field Parameters QC in LIMS: _____ (Initials/Date)
Date Migrated to STORET: _____ Field Sheets Scanned/Saved: _____

WBID: 2257
STORET: 20030881

Total 150 5/1/2017

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



Location: McCoy @ McDuff
Date: 5/1/2017
Sampler: J. Parrish / N. Freden

100 m: Latitude	
Longitude	
0 m: Latitude	
Longitude	
Substrates: Code key, draw proportionate habitat abundance. %	
Snags (2.5m)	1.6%
Roots/undercut banks	0.3%
Leaf Packs (or mats)	1.3%
Aquatic Macrophytes	1.3%
Rock	0.3%
Total 4.8%	
Pools	total # observed = 111 # range expected =
Average width	1.5 m
Average depth	0.20 m
Velocity measured at	meter mark.
WQ & chemistry taken at	0 meter mark.
Habitat Smothering:	Everywhere
Note areas (on map) where sand or silt is smothering substrates, limiting habitability.	
Bank Stability:	Everywhere
Note areas (on map) with unstable, eroding banks.	
Riparian Buffer Width:	20m
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

Width = 1.5

1 square = 0.5m

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

561077585

WBID 2257

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

SAMPLING AGENCY: NE ROC		STORET STATION NUMBER: 20030889	DATE (MM/DD/YY): 5/1/17	RECEIVING BODY OF WATER:
REMARKS:	COUNTY: Duval	LOCATION: McCoy@McDuff		FIELD ID/NAME:

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>NE</i> <i>46 11</i>	20 19 18 17 16	15 14 13 12 (11)	10 9 8 7 6	5 4 3 2 1
Substrate Availability <i>34</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>14</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>7</i> ----- Primary Score <i>30 36</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>5</i>	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 <i>2</i> Left Bank <i>2</i>	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 <i>2</i> Left Bank <i>2</i>	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 <i>3</i> Left Bank <i>3</i> ----- Secondary Score <i>19</i>	10 9	8 7 6	5 4	(3) 2 1

TOTAL SCORE

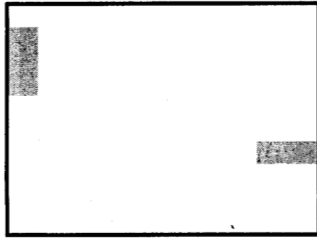
Date: <i>5/1/17</i>	Analyst: <i>J. [Signature]</i>	Signature:
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[illegible]

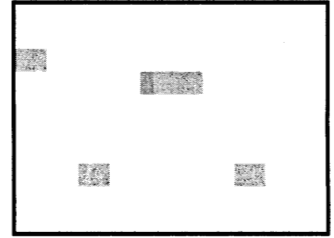
FDEP FORM FD 9000-32 LINEAR VEGETATION SURVEY FIELD SHEET

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

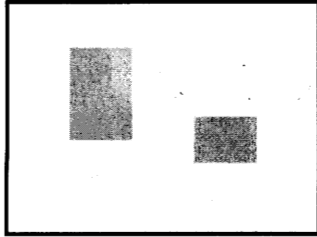
5% Macrophyte Coverage



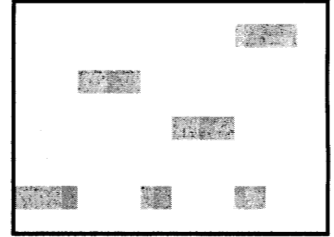
5% Macrophyte Coverage



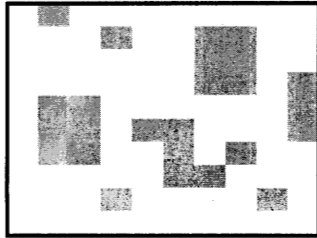
10% Macrophyte Coverage



10% Macrophyte Coverage



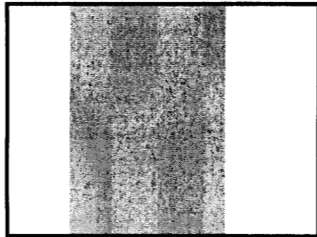
25% Macrophyte Coverage



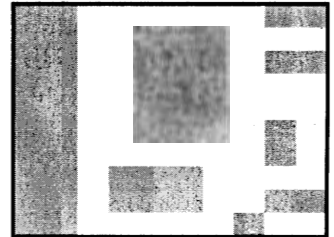
25% Macrophyte Coverage



50% Macrophyte Coverage



50% Macrophyte Coverage



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

30 19 01.7

SAMPLE ID 77585 ORG ID 21PIA LATITUDE 30.317 39 81 42 19-8
COUNTY Duval STORET # 2003088 LONGITUDE 81.7055
DATE 5/1/2017 TIME 1230 SAMPLING AGENCY NE ROC
SITE NAME _____
FIELD ID/NAME McCoy @ Meduff RECEIVING BODY OF WATER _____

RIPARIAN ZONE / STREAM FEATURES

Meter ID: YSI # 4

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							Typical Width (m) Depth (m)/Velocity (m/sec) Transect <u>1.5</u> m wide
Local Watershed NPS Pollution: ☐ No evidence ☐ Slight ☒ Moderate ☐ Heavy							
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank: <u>0m</u> Right Bank: <u>0m</u>				Hydrologic Modification Score (per FT 3101) ☐		<u>0.21</u> m/s <u>0.21</u> m deep	
High Water Mark: <u>0.9</u> + <u>0.1</u> = <u>1.0</u> (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 ☐ 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 Woody Debris (Snags) <u>1.6</u> Undercut Banks / Roots <u>1.3</u> Leaf Packs or Mat <u>1.3</u> Aquatic Vegetation <u>1.3</u> 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>0.05</u> <u>21.3</u> <u>7.47</u> <u>3.64</u> <u>45.5</u> <u>480</u> <u>6.23</u> <u>VOB</u> Mid: Bottom: System Type: Stream ☒ Lake ☐ Wetland ☐ Estuary ☐ Other(Specify) ☐ Water Odors Normal ☒ Petroleum ☐ Sewage ☐ Chemical ☐ Other ☐ Water Sample Taken? ☒ Yes ☐ No Sample Preserved? ☒ Yes ☐ No Lot Number: <u>6302030</u> Exp: <u>10/23/17</u> Algae Sample Taken? ☒ Yes ☐ No Sample Preserved? ☒ Yes ☐ No Lot Number: _____ Exp: _____		
ABUNDANCE Not Obs. Rare Common Abundant Periphyton: ☐ ☐ ☒ ☐ Fish: ☐ ☐ ☒ ☐ Aquatic Plants: ☐ ☒ ☐ ☐ Iron/Sulfur Bacteria: ☒ ☐ ☐ ☐		
AMBIENT FIELD CONDITIONS / NOTES: 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

J. Parrish / N. Frederick

SIGNATURE :

561077585

RDP 8682

WBID: 2257

STORET: 2003088

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: <u>McCoy @ McDuff</u>					County: <u>Duval</u>		Date: <u>5/1/17</u>		Investigators: <u>J. Parrish</u>		
STORET Station Number:											
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	N	N			2	N	N			
	3	N	N			3	N	N			
	4	N	N			4	N	N			
	5	N	N	96		5	N	N	60		
	6	N	N			6	N	N			
	7	N	N			7	N	N			
	8	N	N			8	N	N			
	9	N	N			9	N	N			
10	1	N	N		70	1	N	N			
	2	3	N			2	N	N			
	3	N	N			3	N	N			
	4	N	N			4	N	N			
	5	3	N	96		5	N	N	96		
	6	N	N			6	N	N			
	7	N	N			7	N	N			
	8	N	N			8	3	N			
	9	N	N			9	N	N			
20	1	6	N		80	1	N	N			
	2	5	N			2	N	N			
	3	N	N			3	N	N			
	4	3	N			4	4	N			
	5	N	N	96		5	4	N	96		
	6	3	N			6	4	N			
	7	N	N			7	N	N			
	8	N	N			8	N	N			
	9	4	N			9	4	N			
30	1	5	N		90	1	N	N			
	2	5	N			2	N	N			
	3	N	N			3	N	N			
	4	5	N			4	4	N			
	5	N	N	96		5	N	N	96		
	6	N	N			6	N	N			
	7	N	N			7	N	N			
	8	5	N			8	4	N			
	9	4	N			9	4	N			
40	1	6	N		100	1	N	N			
	2	6	N			2	N	N			
	3	6	N			3	N	N			
	4	6	N			4	4	N			
	5	5	N	70		5	4	N	96		
	6	5	N			6	4	N			
	7	5	N			7	N	N			
	8	6	N			8	4	N			
	9	5	N			9	N	N			
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	N	N								
	3	N	N								
	4	N	N								
	5	N	N	96							
	6	N	N								
	7	N	N								
	8	N	N								
	9	N	N								

Secchi depth 0.15
Estimated? 0.15

points ranked 4-6 32
total points assessed 99
% points ranked 4-6 32%

Check accompanying data collected at same site/date.

Algal mat sample	☒
Linear Veg Survey	☒
Habitat Assessment	☐
SCI/Biorecon	☐
Water sample	☐
RQ-	☐

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)

Boldly "X" this box if there is qualified data on this name.

Meter YSI # 4 RQ- 2017-04-24-08 Project Rocky SCS

- 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 2/2017

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.	J. Parns L	5/1/17	716	23.6	8.48	8.48	100	57.4	-	P	L
ICV	J	L	719	23.7	8.40	8.43	99.6	56.3	-	P	L
CCV	J. Parns	5/1/17	1440	24.5	8.34	8.19	98.4	57.4	-	P	L
CCV											

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 hos/cm	Meter Reading μ hos/cm	Pass / Fail	Lab / Field
Calibr.	J. Parns L	5/1/17	720	161101A	11/17	1000	1000	P	L
ICV	J	L	721	21472017	12/17	147	148	P	L
CCV	J. Parns	5/1/17	1441	161101B	5/17	100	97	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.	J. Parns L	5/1/17	722	262047	2/19	7.0	7.0	177.7	P	L
Calibr.	J	L	723	260F42	10/18	4.0	4.0	161.5	P	L
Calibr.	J	L	724	260E35	2/18	10.0	10.0	184.4	P	L
ICV	J	L	725	2610F42	10/18	4.0	4.02	159.3	P	L
CCV	J. Parns	5/1/17	1445	260E35	10/18	10.0	10.06	173.2	P	L
CCV										

Report pH with one decimal place; pH Acceptance criteria ± 0.2 SU; mV pH7 Range 0 ± 50 ;

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

mV pH 10 Range -180 ± 50 ; Slope from 7 to 10 and 4 to 7 must be between 165 and 180 mV

Depth (Quarterly)

Date of Last Depth Verification 2/17

Depth Sensor (Daily)	Name	Date	Time CT-ET	Zero the Sensor	ICV Value	Pass / Fail	Lab / Field
Pressure mode in air	J. Parns	5/1/17	726	0.000	0.00	P	L

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

NF

5/11/17