



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

PAGE 1 OF 1

Data Qualified?
Yes / No

October 2016

STORET Station Name: Double Run @ 800m DS of DBI Run Road Date: 11-29-16
(mm/dd/yyyy)
STORET Station ID: 20020601 (G1CE0032) WBID: 2852 Latitude: 28.6901444
(Decimal Degrees)
County: Lake RQ: 2016-11-28-44 ORG ID: 21FLCEN Longitude: -81.7494138
(Decimal Degrees)
Receiving Body of Water: Little Lake Harris Field ID: G1CE0032

Sampling Team Members		WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
Terry Riordan		✓	✓			
Leif Boman			✓		✓	✓

Sampling Equipment		
☒ Sample Container	☐ Van Dorn	☐ Pole
☐ Carboy	☒ Syringe	
☐ Dipper	☐ Other	
Equipment ID		

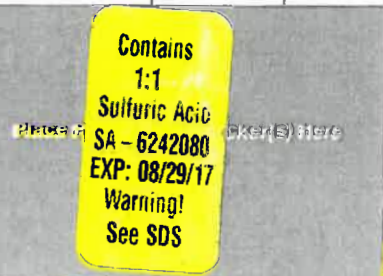
Collection Method		
☐ Wading	☐ Via Boat	
☐ From Shore	☐ Canoe/Kayak	
☐ Other (note below)	☐ Electric Motor	
	☒ Gasoline Motor	

Water Level: Dry / Low / (Normal) / High / Flooded Matrix: Fresh / Marine / DI
Meter ID# Betty/67 Photos: Yes / (No) Tide Falling: Yes / No / (NA)

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	1102	0.3	1.8	1.9	20	5.9	0.1	1.8(s)	211	18.2
CEN		1.3		1.8	19	5.9	0.1		211	17.8

Biological Samples Collected: None (HA) SCI (LVS) (RPS) LVI Other

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 ☐ H2SO4			☒ <2
Metals	☐ W-ICPMS ☐ W-ICP	☐ Ice ☐ HNO2			☐ <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			
Microbiology	☐ E Coli ☐ F Coli ☐ Entero ☐ QPCR	☐ Ice			
Periphyton	☐ ALGAE-ID	☐ Ice			
Pesticides	☐ W-PSNP-TQ ☐ W-AHERB-AA ☐ W-FYR-AA-R ☐ W-PC-AA-SF ☐ W-UHERB-AA ☐ W-GLYPH	☐ Ice ☐ Other			



Notes:

Place Label Here
(If Available)

Signature: [Signature] Date: 11-29-16

Field Parameters Entered into LIMS: KMW 12/2/16 (Initials/Date) Field Parameters QC in LIMS: (Initials/Date)
Date Migrated to STORET: (Initials/Date) Field Sheets Scanned/Saved: (Initials/Date)

FDEP FORM FD 9000-3: PHYSICAL/CHEMICAL CHARACTERIZATION FIELD SHEET

SAMPLE ID _____ ORG ID 21 FLCCN LATITUDE 28.6901444
 COUNTY lake STORET # 20020601 LONGITUDE -81.7494138
 DATE 11-29-16 TIME 1102 SAMPLING AGENCY FDEP CE-ROC
 SITE NAME Double Run @ 800m Downstream of Double Run Road
 FIELD ID/NAME GICE0032 RECEIVING BODY OF WATER Little Lake Harris

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) ☐ <u>100</u> ☐ ☐ ☐ ☐ ☐ ☐ ☐								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) Depth (m)/Velocity (m/sec) Transect 20 m wide			
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>0</u> m/s <u>0</u> m/s <u>0</u> m/s			
High Water Mark: <u>0.2</u> + <u>1.8</u> = <u>2.0</u> (m) (above present water level) (present depth) (above bed)				Artificially Impounded ☐ Yes ☒ No		☐ m deep <u>1.8</u> m deep ☐ m deep			
Artificially ☒ No ☐ Mostly recovered, more sinuous Channelized: ☐ Some recovery ☐ Recent, severe				Canopy Cover % ☒ 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			WATER QUALITY <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>Depth (M)</th> <th>Temp. (°C)</th> <th>pH (SU)</th> <th>D.O. (MG/L)</th> <th>D.O. Sat (%)</th> <th>Cond. (UMHO/CM)</th> <th>Salinity (PPT)</th> <th>SECCHI (M)</th> </tr> </thead> <tbody> <tr> <td>Top:</td> <td><u>0.3</u></td> <td><u>18.2</u></td> <td><u>5.9</u></td> <td><u>1.9</u></td> <td><u>20</u></td> <td><u>211</u></td> <td><u>0.1</u></td> <td><u>1.8</u></td> </tr> <tr> <td>Mid:</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>☒ VOB</td> </tr> <tr> <td>Bottom:</td> <td><u>1.3</u></td> <td><u>17.8</u></td> <td><u>5.9</u></td> <td><u>1.8</u></td> <td><u>19</u></td> <td><u>211</u></td> <td><u>0.1</u></td> <td>TOTAL DEPTH</td> </tr> <tr> <td>Meter ID:</td> <td colspan="7"><u>Betty 167</u></td> <td><u>1.9</u></td> </tr> </tbody> </table>							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>18.2</u>	<u>5.9</u>	<u>1.9</u>	<u>20</u>	<u>211</u>	<u>0.1</u>	<u>1.8</u>	Mid:								☒ VOB	Bottom:	<u>1.3</u>	<u>17.8</u>	<u>5.9</u>	<u>1.8</u>	<u>19</u>	<u>211</u>	<u>0.1</u>	TOTAL DEPTH	Meter ID:	<u>Betty 167</u>							<u>1.9</u>
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			Water Sample Taken? ☒ Yes ☐ No Sample Preserved? ☒ Yes ☐ No Lot Number: _____ Exp: _____			Color Tannic ☒ Green (Algae) ☐ Clear ☐ Other (Specify) ☐																																															
			Algae Sample Taken? ☐ Yes ☒ No Sample Preserved? ☐ Yes ☐ No Lot Number: _____ Exp: _____			Clarity Clear ☒ Slightly Turbid ☐ Turbid ☐ Opaque ☐																																															
ABUNDANCE <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>Not Obs.</th> <th>Rare</th> <th>Common</th> <th>Abundant</th> </tr> </thead> <tbody> <tr><td>Periphyton:</td><td>☐</td><td>☐</td><td>☒</td><td>☐</td></tr> <tr><td>Fish:</td><td>☐</td><td>☒</td><td>☐</td><td>☐</td></tr> <tr><td>Aquatic Plants:</td><td>☐</td><td>☐</td><td>☐</td><td>☒</td></tr> <tr><td>Iron/Sulfur Bacteria:</td><td>☒</td><td>☐</td><td>☐</td><td>☐</td></tr> </tbody> </table>				Not Obs.	Rare	Common	Abundant	Periphyton:	☐	☐	☒	☐	Fish:	☐	☒	☐	☐	Aquatic Plants:	☐	☐	☐	☒	Iron/Sulfur Bacteria:	☒	☐	☐	☐	System Type: Stream ☒ Lake ☐ Wetland ☐ Estuary ☐ Other (Specify) ☐																									
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AMBIENT FIELD CONDITIONS / NOTES: ☒ The antecedent hydrologic conditions have been met to my best knowledge.																																																					
SAMPLING TEAM <u>Terry Riordan</u> <u>Leif Boman</u>					SIGNATURE: <u>[Signature]</u>		DATE: <u>11-29-16</u>																																														

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

Double Run @ 800 m

Location: DS of Pbl Run Rd

Date: 11-29-16

Sampler: Leif Boman/Riordan

100 m: Latitude 28.689369

Longitude -81.748893

0 m: Latitude 28.6901444

Longitude -81.7494138

Substrates: Code key, draw proportionate habitat abundance. %



Snags 35 m² 1.75



Roots/undercut banks



Leaf Packs (or mats)



Aquatic Macrophytes 10 m² 0.5



Tree/Taxodium



Pools total # observed =
range expected =

Average width 20 m

Average depth 1.5 m

Velocity measured at — meter mark.

WQ & chemistry taken at 0 meter mark.

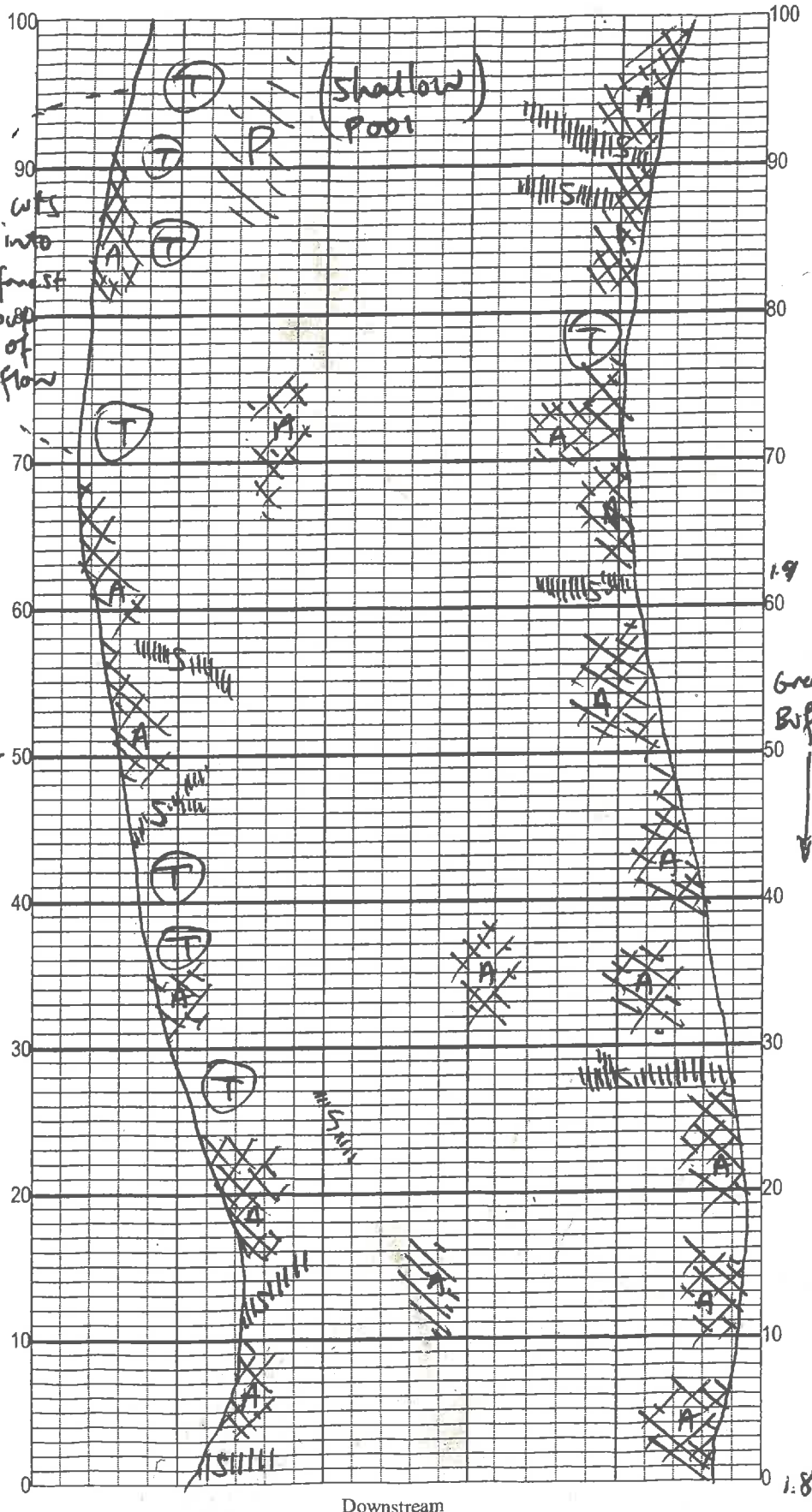
Habitat Smothering:
Note areas (on map) where sand or silt is smothering substrates, limiting habitability.

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: too windy for velocity.
accurate

Salvinia, Ceratophyllum
Pistia, Peltandra.



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

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

SAMPLING AGENCY: <u>21 F L C E W</u>		STORET STATION NUMBER: <u>20020601</u>	DATE (MM/DD/YY): <u>11-29-16</u>	RECEIVING BODY OF WATER: <u>Little Lake Harris</u>
REMARKS:	COUNTY: <u>Lake</u>	LOCATION: <u>Double Run @ 800'</u> <u>Downstream of DBI Run Rd</u>		FIELD ID/NAME: <u>G1CE0032</u>

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 <u>10</u>	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1
Substrate Availability <u>3</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>2</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>10</u> ----- Primary Score <u>25</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>10</u> Left Bank <u>10</u> <u>20</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>10</u> Left Bank <u>10</u> <u>20</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>9</u> Left Bank <u>9</u> <u>18</u> ----- Secondary Score <u>78</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

103 TOTAL SCORE

Date: <u>11-29-16</u>	Analyst: <u>Terry Riordan</u> <u>Keith Boman</u>	Signature: <u>[Signature]</u>
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Comments:

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]

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: <u>Double Run @ 800m</u> <u>Downstream of Double Run Road</u>					County: <u>Lake</u>		Date: <u>11-29-16</u>		Investigators: <u>Terry Riordan</u> <u>Leif Boman</u>	
					STORET Station Number: <u>20020601</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	X	Y		60	1	X	Y		
	2	2	Y			2	2	Y		
	3	2	Y			3	2	Y		
	4	2	Y			4	2	Y		
	5	2	Y			5	2	Y		
	6	2	Y			6	2	Y		
	7	2	Y			7	2	Y		
	8	4	Y			8	2	Y		
	9	X	Y			9	X	Y		
10	1	2	Y		70	1	2	Y		
	2	2	Y			2	2	Y		
	3	2	Y			3	2	Y		
	4	2	Y			4	2	Y		
	5	2	Y			5	2	Y		
	6	2	Y			6	2	Y		
	7	2	Y			7	2	Y		
	8	2	Y			8	2	Y		
	9	X	Y			9	X	Y		
20	1	2	Y		80	1	2	Y		
	2	2	Y			2	2	Y		
	3	2	Y			3	2	Y		
	4	2	Y			4	2	Y		
	5	2	Y			5	2	Y		
	6	2	Y			6	2	Y		
	7	2	Y			7	2	Y		
	8	2	Y			8	2	Y		
	9	X	Y			9	X	Y		
30	1	2	Y		90	1	2	Y		
	2	2	Y			2	2	Y		
	3	2	Y			3	2	Y		
	4	2	Y			4	2	Y		
	5	2	Y			5	2	Y		
	6	2	Y			6	2	Y		
	7	2	Y			7	2	Y		
	8	2	Y			8	2	Y		
	9	X	Y			9	X	Y		
40	1	2	Y		100	1	2	Y		
	2	2	Y			2	2	Y		
	3	2	Y			3	2	Y		
	4	2	Y			4	2	Y		
	5	2	Y			5	2	Y		
	6	2	Y			6	2	Y		
	7	2	Y			7	2	Y		
	8	2	Y			8	2	Y		
	9	X	Y			9	X	Y		
50	1	2	Y		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	2	Y							
	3	2	Y							
	4	2	Y							
	5	2	Y							
	6	2	Y							
	7	2	Y							
	8	2	Y							
	9	X	Y							

Secchi depth	1.8
Estimated?	N
# points ranked 4-6	6
total points assessed	79
% points ranked 4-6	8

Check accompanying data collected at same site/date.	
Algal mat sample	
Linear Veg Survey	✓
Habitat Assessment	✓
SCI/Biorecon	
Water sample	✓
RQ-2016-11-28-44	

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

6mm
20mm
10cm