

Site Name Wilkinson Creek of Wilkinson Bluff Road

Date: 03/07/2019

Field ID G4NW0357 Storet G4NW0357

Project: SMP

Visit ID 79261

RQ: 2019-02-18-19

RPS ID 9268

LIMS ID: _____

Macro ID N/A

WBID: 336

HA ID 15679

☒ SCI

☐ RPS/LVS Only

☒ Sample Site Created in SBIO

☒ Phys/Chem entered in SBIO

☒ HA entered in SBIO Initial FB 03/18/2019

☐ Date and Initial QA: _____

☒ RPS entered in SBIO Initial FB 03/18/2019

☐ Date and Initial QA: _____

☐ LVS entered in SBIO Initial _____

☐ Date and Initial QA: _____

☐ < 2 m² vegetation

☐ Plants getting verified Date submitted: _____

☐ Plants verified Date returned: _____

☐ RPS authorized in SBIO

☐ Date and Initial: _____

☐ RPS score: _____

☐ Macro authorized in SBIO

☐ Date and Initial: _____

☐ Macro score: _____

☐ SCI complete: _____

SCI Score: _____

☒ If SMP, scanned into database



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2019

Data Qualified?

Yes / No

WIN Station Name:

Wilkinson Creek upstream of Wilkinson Bluff Road

Date: 3/7/19

(mm/dd/yyyy)

WIN/ Field ID: G4NW0357

WBID: 336

Latitude: 30.69043

(Decimal Degrees)

County: Okaloosa

ORG ID: 21FLPNS

Longitude: -86.67899

(Decimal Degrees)

Receiving Body of Water: Yellow River

RQ-2019- 02-18-19

Sampling Team Members

J. P. Jones
N. M. M. M.

WQ Measurements
Sample Collection
Documentation
Preservation
Preservation Check

Sampling Equipment

☒ Sample Container ☐ Van Dorn ☐ Pole
☐ Carboy ☐ Syringe
☐ Dipper ☐ Other

Depth Measured with
Equipment ID

Collection Method

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

Water Level: Dry/ Pooled/ Low / Normal / High / Flooded

Meter ID# 154179

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	1150	0.4	0.2	0.4	10.23	98.4	4.88	0.01	21.3	13.6
CEN				15)						

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

SBO ID Numbers: SBO-ID: 79261 HA-ID: 15679 RPS-ID: 9268 Macrophyte-ID: N/A 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	SAB197090	7/19	☒ <2
Metals	☐ W-ICPMS ☒ W-ICP	☒ Ice ☒ HNO3	NA8344050	12/19	☒ <2
Filtered Nutrients	☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter	☒ Ice			
Chlorophyll	☒ CHL-SUITE-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-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	☒ Ice			
Phytoplankton	☐ DTY-QN-C ☐ PKD-QN-C				

Place Preservative Sticker(s) Here
(if Available)

Notes:

Less than 2m² vegetation
no LVS conducted

Field/WIN ID →



G4NW0357

Location:

Wilkinson Creek upstream of Wilkinson Bluff Road

Signature:

J. P. Jones

Date:

3/7/19

LIMS EVENT ID:

WIN Import ID:

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 79261 ORG ID 21FLPNS LATITUDE 30.69043
 COUNTY Okaloosa STORET # 64NW0357 LONGITUDE -86.67899
 DATE 3/7/19 TIME 1150 SAMPLING AGENCY 21FLPNS
 SITE NAME Wilkinson Creek Upstream of Wilkinson Buff Rd.
 FIELD ID/NAME 64NW0357 RECEIVING BODY OF WATER Yellow River

RIPARIAN ZONE / STREAM FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category): Forest/Natural <u>95</u> Silviculture <u>0</u> Field/Pasture <u>2</u> Agricultural <u>0</u> Residential <u>520</u> Commercial <u>0</u> Industry <u>0</u> Other (Specify) <u>0</u>							Landscape Development Intensity Index (LDI) <u>W/A</u>	
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 <u>3</u> m wide			
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank: <u>718</u> Right Bank: <u>16</u>			Hydrologic Modification Score (per FT 3101) <u>1-2</u>		m/s <u>0.31</u> m/s <u>0.31</u> m/s <u>0.31</u>			
High Water Mark: <u>0.2</u> + <u>0.4</u> = <u>0.6</u> (m) (above present water level) (present depth) (above bed)			Artificially Impounded ☐ Yes ☒ No		m deep <u>0.4</u> m deep <u>0.4</u> m deep <u>0.4</u>			
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

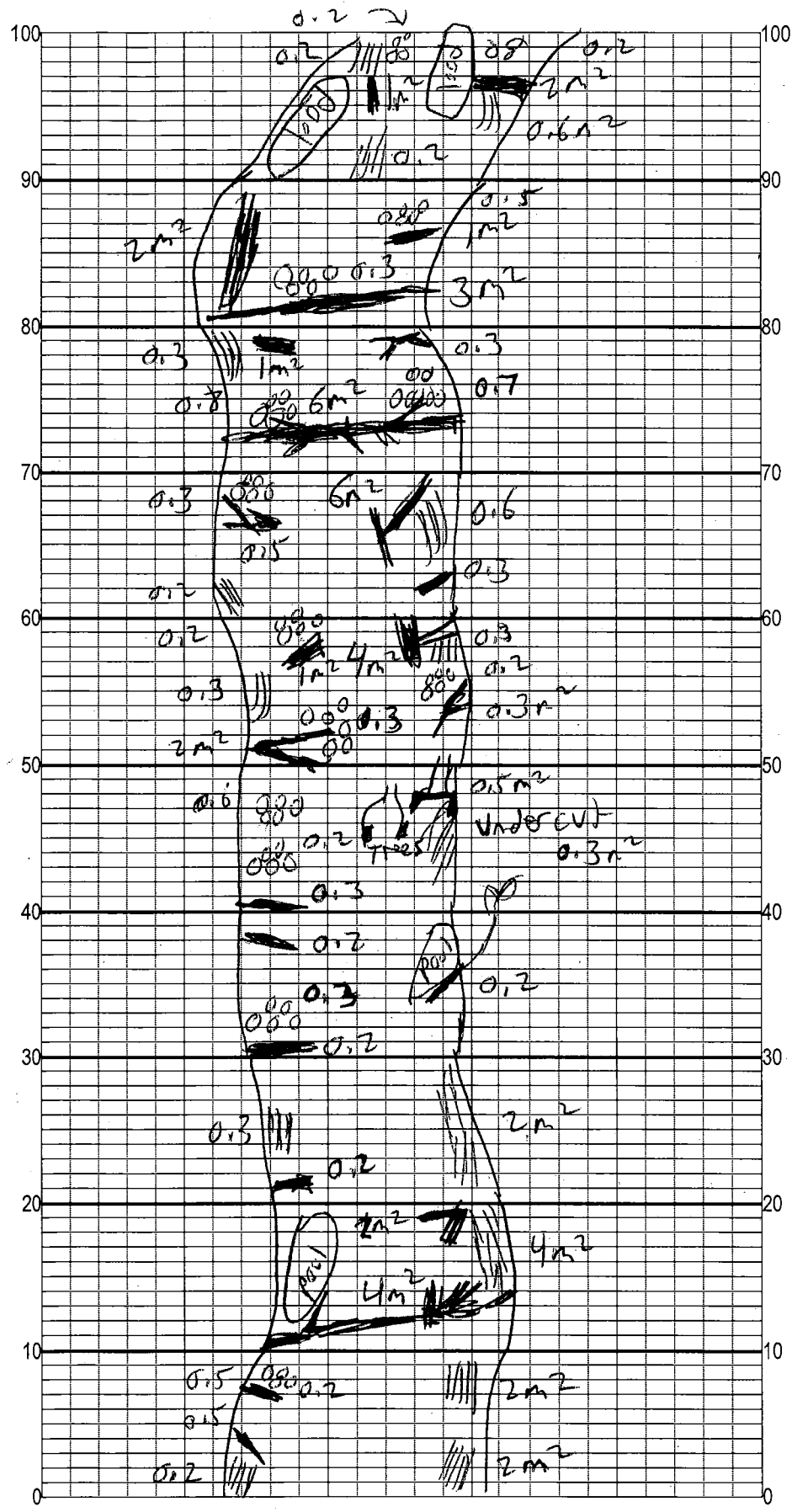
Sediment Oils ☒ Absent ☐ Slight ☐ Moderate ☐ Profuse			Sediment Odors ☒ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ Other (Specify):			Smothering of Substrates Sand Smothering: None ☐ Slight ☒ Moderate ☐ Severe ☐ Silt Smothering: None ☐ Slight ☒ Moderate ☐ Severe ☐ Algae Smothering: None ☒ Slight ☐ Moderate ☐ Severe ☐		
SUBSTRATE TYPE Assessment Tool: ☒ SCI ☒ RPS ☒ LVS ☐ LCI ☐ BioRecon			WATER QUALITY					
% Coverage Woody Debris (Snags) <u>13</u> Undercut Banks / Roots <u>4.5</u> Leaf Packs or Mat <u>1.7</u> Aquatic Vegetation Rock or Shell Rubble..... Sand..... <u>80.8</u> Mud / Muck / Silt Other Other			Depth (M) Temp. (°C) pH (SU) D.O. (MG/L) D.O. Sat (%) Cond. (UMHO/CM) Salinity (PPT) SECCHI (M) Top: <u>0.2</u> <u>13.6</u> <u>4.88</u> <u>10.23</u> <u>98.4</u> <u>21.3</u> <u>0.01</u> <u>0.4</u> Mid: <u>0.4</u> <u>13.6</u> <u>4.88</u> <u>10.23</u> <u>98.4</u> <u>21.3</u> <u>0.01</u> <u>0.4</u> Bottom: <u>0.4</u> <u>13.6</u> <u>4.88</u> <u>10.23</u> <u>98.4</u> <u>21.3</u> <u>0.01</u> <u>0.4</u> Meter ID: <u>154179</u>					
INVERT # Times Sampled PERI # Times Sampled Woody Debris (Snags) <u>5</u> <u>5</u> Undercut Banks / Roots <u>5</u> <u>5</u> Leaf Packs or Mat <u>5</u> <u>5</u> Aquatic Vegetation Rock or Shell Rubble..... Sand..... <u>5</u> <u>5</u> Mud / Muck / Silt Other Other			Water Odors Normal ☒ Petroleum ☐ Sewage ☐ Chemical ☐ Other ☐ Water Sample Taken? ☒ Yes ☐ No Sample Preserved? ☒ Yes ☐ No Lot Number: _____ Exp: _____ 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: ☒ ☐ ☐ ☐			Water Surface Oils Normal ☒ Sheen ☐ Globbs ☐ Slick ☐ Other ☐ Color Tannic ☐ Green (Algae) ☐ Clear ☒ Other (Specify) ☐ Clarity Clear ☒ Slightly Turbid ☐ Turbid ☐ Opaque ☐					
System Type: Stream ☒ Lake ☐ Wetland ☐ Estuary ☐ Other(Specify) ☐			AMBIENT FIELD CONDITIONS / NOTES: <u>< 2m² veg. No WS conducted</u> ☒ The antecedent hydrologic conditions have been met to my best knowledge.					
SAMPLING TEAM <u>James Pitts / Nathan Muller</u>			SIGNATURE: <u>James Pitts</u>		DATE: <u>3/7/19</u>			

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

Top
View

BB

Left
Bank



Location: Wilmington Creek
Date: 3/7/19
Sampler: Janes PMS

100 m: Latitude 30.69058
Longitude -86.67908
0 m: Latitude 30.69043
Longitude -86.67899

Substrates: Code key, draw proportionate habitat abundance. %

	Snags	<u>13</u>
	Roots/undercut banks	<u>4.5</u>
	Leaf Packs (or mats)	<u>1.7</u>
	Aquatic Macrophytes	<u> </u>
	Pools	<u> </u>
		total # observed = <u> </u>
		# range expected = <u>3-6</u>

Average width 0.4 m 3m
Average depth 0.4 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:

WIN-ID: Q4NW0357
SRI0 ID: 79261

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 FL PMS</u>		STORET STATION NUMBER: <u>G4NW0357</u>	DATE (MM/DD/YY): <u>3/7/19</u>	RECEIVING BODY OF WATER: <u>Yellow R.</u>
REMARKS: <u>SB1020 79261</u>	COUNTY: <u>Okaloosa</u>	LOCATION: <u>Wilkinson Creek</u>	FIELD ID/NAME: <u>G4NW0357</u>	

Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components Substrate Diversity <u>15</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 5 4 3 2 1
Substrate Availability <u>14</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>19</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>14</u> ----- Primary Score <u>14 62</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 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>10</u> <u>10</u> Left Bank _____	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) 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 woody root zone with raw, eroded areas. 3 2 1
Riparian Buffer Zone Width Right Bank <u>8</u> <u>10</u> Left Bank _____	Width of vegetation greater than 18 m L (10) 9	Width of vegetation >12 to 18m R (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>8</u> <u>10</u> Left Bank _____ ----- Secondary Score <u>76</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. R (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

138

TOTAL SCORE

HA ID: 15679

Date: <u>3/7/19</u>	Analyst: <u>Jared PMS</u>	Signature: <u>JR PMS</u>
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DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: <u>G4NW0357 (Wilkinson)</u>					County: <u>Ocala</u>		Date: <u>3/7/19</u>		Investigators: <u>Jane Pappas / Nathan Mulkey</u>	
STORET Station Number: <u>G4NW0357</u>										
Transect t (m)	Point 1=right 9=left	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover	Transect t (m)	Point 1=right 9=left	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover	
0	1	N	N		60	1	N	N		
	2					2				
	3					3				
	4					4				
	5			74		5			80	
	6					6				
	7					7				
	8					8				
	9	N	N			9	N	N		
10	1	N	N		70	1	N	N		
	2					2				
	3					3				
	4					4				
	5			70		5			78	
	6					6				
	7					7				
	8					8				
	9	N	N			9	N	N		
20	1	N	N		80	1	N	N		
	2					2				
	3					3				
	4					4				
	5			92		5			72	
	6					6				
	7					7				
	8					8				
	9	N	N			9	N	N		
30	1	N	N		90	1	N	N		
	2					2				
	3					3				
	4					4				
	5			96		5			68	
	6					6				
	7					7				
	8					8				
	9	N	N			9	N	N		
40	1	N	N		100	1	N	N		
	2					2				
	3					3				
	4					4				
	5			88		5			48	
	6					6				
	7					7				
	8					8				
	9	N	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 densimeter 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									
	3									
	4									
	5			88						
	6									
	7									
	8									
	9	N	N							

Secchi depth 0.4
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 ☐
Habitat Assessment ☒
SCI/Biorecon ☒
Water sample ☒
RQ-2019-02-18-19

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: 79261

RPS ID: 9268

[illegible]