

Site Name S200. Choctawhatchee R above Hwy 20

Date 04/11/2018

WIN ID 3534

Field ID 3534

Visit ID 78324

RPS ID 8964

VPDB ID N/A

HA ID 15098

☒ SCI

☐ RPS/LVS Only

☒ Sample Site Created in SBIO Initial/Date FB, 04/17/2018

☒ Phys/Chem entered in SBIO Initial/Date FB, 04/17/2018

☒ HA entered in SBIO Initial FB, 04/17/2018

☐ Date and Initial QA: _____

☒ RPS entered in SBIO Initial FB, 04/17/2018

☐ Date and Initial QA: _____

☐ LVS entered in SBIO Initial _____

☐ Date and Initial QA: _____

☒ $< 2 \text{ m}^2$ vegetation

☐ Plants getting verified Date submitted: _____

☐ Plants verified Date returned: _____

Project. TREND Monitoring

SBIO Survey. Ambient Trend Monitoring

RQ-2018-

Notes.



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
SURFACE WATER FIELD SHEET
Watershed Monitoring Section
October 2017

STATION INFORMATION

Station Name (Random ID for Status): S200 Date: 08/11/2018
(MM/DD/YYYY)
Waterbody Name: Choctawhatchee River @ HWY 20 All Times Are: (circle one)
(if known) ETZ or CTZ or EST (daylight savings time never observed)
Waterbody Type: Small Lake (≥ 4 and < 10 hectares) / Large Lake (≥ 10 hectares)
(Circle One) (collect samples in middle of open water) (collect samples at selected location point)
Stream / Canal / River
(collect samples in representative area) (collect samples in representative area) (collect samples in representative area)
Field Sheet Completed by: F Butera WQ Sample Collected by:

WATER CHARACTERISTICS

Total Water Depth: 4.8 (meters) Secchi Depth: 0.8 (meters) ☐ Check if Secchi Visible on Bottom
(Average of 2 measurements) (from SHADED side) ("S" qualifier needed)
Stream/River/Canal Flow: N/A / No Flow, Water within Banks / Flowing within Banks / Flow Above Banks
(Circle One) (waterbody not stream / river / canal) (comment if avg. velocity < 0.05 m/s) (For Status sites, DO NOT sample if flooded above banks.)
Water Level: (Circle One) Low / Normal / High
Water Sample Collection Device: Direct Grab / Van Dorn: # of grabs & Equipment ID
(Circle One) with Sample Bottle

FIELD MEASUREMENTS

Meter ID# <u>132237</u> <u>c 50m mk</u>		Read by: <u>S. Slade</u>				
Time (24 hr.)	Surface Depth Collected (meters)	Temperature ($^{\circ}\text{C}$)	Specific Conductance ($\mu\text{mhos/cm}$)	D.O. (%)	D.O. (mg/L)	pH (SU)
<u>11:40</u>	<u>0.3</u>	<u>18.94</u>	<u>92</u>	<u>77.8</u>	<u>7.22</u>	<u>6.75</u>
Time (24 hr.)	Bottom Depth Collected (meters)	Temperature ($^{\circ}\text{C}$)	Specific Conductance ($\mu\text{mhos/cm}$)	D.O. (%)	D.O. (mg/L)	pH (SU)
<u>11:45</u>	<u>4.3</u>	<u>18.90</u>	<u>92</u>	<u>77.4</u>	<u>6.19</u>	<u>6.68</u>

☐ Check here if bottom measurements not collected because total depth < 1.5 m.

DATA COLLECTION DEPTHS: Total depth < 0.1 m $\rightarrow$ no data collection. Total depth ≥ 0.1 m and < 0.6 m $\rightarrow$ surf. meas. & sample at mid-depth.
Total depth ≥ 0.6 m & < 1.5 m $\rightarrow$ surface meas. & sample at 0.3m. Total depth ≥ 1.5 m $\rightarrow$ surface meas. & sample at 0.3m, bottom meas. 0.5 m above bottom.

PRESERVATION INFORMATION

☒ N/A (No samples collected; please state why in comments.)
Were all samples (including QA/QC blanks) properly preserved within 15 minutes of collection? Yes / No
1 vial sulfuric acid added to nutrients sample(s)? Yes / No Sulfuric acid info: (circle one) Chem ID / Lot #
1 vial nitric acid added to metals sample(s)? Yes / No Nitric acid info: (circle one) Chem ID / Lot #
pH of all acidified samples verified to be < 2 ? Yes / No
All water & sediment samples submerged in wet ice ($\leq 6^{\circ}\text{C}$)? Yes / No
SCI samples preserved with buffered formalin? Yes / No / NA Preserved By:
(Please describe any variations to this preservation protocol in the comments section below.)

QA/QC SAMPLE INFORMATION

QA/QC Sample: N/A / Field Blank / Equipment Blank Time: (24 hr.)
(Circle One) (Field-cleaned) or (Lab-cleaned)
Van Dorn Equipment ID: Collected by:

Photos Taken? Yes / No / Not Due (Required for all Status sites. Required annually for Trend sites.)
Fuel Powered Equipment Used? (e.g. boat motor) Yes / No
Access Method for Sample Collection (circle one):
Wading / Bank or Structure (e.g. bridge, dock) / Motorized Boat
Non-Motorized Boat (e.g. canoe, kayak) / Air Boat / Other

Weather Conditions: Sunny, 70's, Clear
(comment on back if weather may affect water quality parameter values)

Personnel/Visitors On Site: Stephen Slade
Frank Butera



S200

21ST1804 CHOCTAWHATCHEE RIVER NEAR BRUCE

PLACE QA/QC LABEL HERE
(if blank collected at this site)

Station Name (Random ID for Status): S200Date: 04/11/2018

SEDIMENT INFORMATION (for Lakes only)

☒ N/A (Site not a lake or no samples collected. If no samples collected, please state why in comments.)Collection Depth: _____ (meters)
(Total Water Depth)Collection Time: _____ (24 hr.)
(Different than surface and bottom time in Field Measurements section)

Collection Interval: (Circle)

Top 3-5 cm

Other: _____

(If top 3-5 is too flocculent)

General Sample Collection Area: _____

(Describe-- near shore, central, north side near dock, etc.)

Sample Collection Device: (Circle One)

Corer

Ekman

Petite Ponar

Equipment ID: _____

Sediment Type: (Circle All That Apply)

Clay/Silt

Sand

Gravel/Shell Rubble

*Organic Muck

*(very fine-grained flocculent organic material)

Sediment Odors: (Circle One)

Normal

Sewage

Petroleum

Hydrogen Sulfide

Other: _____

Sediment Color: _____

Number of Grabs Collected (3 minimum): _____

Collected by: _____

BIOASSESSMENT INFORMATION

Stream Condition Index Information (Appropriate Trend sites)

Was the SCI sample collected? (Circle One) Yes / No / Not Due / NA (not an appropriate Trend site)Collection Time: 12:00 CTZ (24 hr.)
(Different than surface and bottom time in Field Measurements section)

If site was an appropriate Trend stream or river but "NO" was selected, why was the SCI not collected (flooded, < 0.05 m/s velocity, etc.)?

SB10 ID 78324

Collected by: _____

F. Butera

Habitat Assessment Information (All Status Streams, Rivers, & Canals; Trend sites appropriate for SCI)

Was the HA performed? (Circle One) Yes / No / Not Due / NA (site not a Status Stream/River/Canal or appropriate Trend site)

If site was a stream, river or canal but "NO" was selected, why was the HA not performed (dangerous site conditions, etc.)?

HA ID 15098

Performed by: _____

F. Butera

Rapid Periphyton Survey Information (Trend sites appropriate for SCI)

Was the RPS performed? (Circle One) Yes / No / Not Due / NA (not an appropriate Trend site)ALGAL-ID sample collected? (circle one) Yes No

If site was an appropriate Trend stream or river but "NO" was selected, why was the RPS not performed (dangerous site conditions, etc.)?

Performed by: _____

F. Butera

Linear Vegetation Survey Information (Trend sites appropriate for SCI) / Lake Vegetation Index Information (Status Lakes)

Was the LVS performed? (Circle One) Yes No / Not Due / NA (not an appropriate Trend site)

Number of Plant ID specimens collected: _____

Was the LVI performed? (Circle One) Yes / No / Not Due (LVI performed previous year) / NA (not a Status Lake)If site was an appropriate Trend stream or river but "NO" was selected, why was LVS not performed (< 2 m² aquatic vegetation, dangerous site conditions, etc.)?

If site was a Status Lake but "NO" was selected, why was LVI not performed (LVI will be performed at later date, dangerous site conditions, etc.)?

< 2 m² aquatic vegetation

Performed by: _____

Comments: Include information such as: estimated level of impact to the system (ex. obvious pollution, etc.), any variations from normal preservation protocols (ex. adding more than 1 vial acid, etc.), any problems experienced with collecting samples (ex. sediment grab 1 lost due to fall-out, etc.), any site specifics (ex. dense submerged vegetation, etc.), any site conditions (ex. recent heavy rains, etc.), description of any photos taken, etc., any qualifiers needed (ex. "J" for failed calibration verification, etc.), etc.

Sampler Names: _____

Frank Butera

(Please PRINT)

Stophor Slade

(Please PRINT)

(Please PRINT)

Sampler Signatures: _____

Frank ButeraStophor Slade

OFFICE USE ONLY

Reviewed for completion by: _____

Date: _____

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

SAMPLE ID 78324 ORG ID _____ LATITUDE _____
 COUNTY Walton / Washington STORET # 3534 LONGITUDE _____
 DATE 04/11/2018 TIME 12:00 CTZ SAMPLING AGENCY FL DEP - NWROC
 SITE NAME S200. Choctawhatchee River @ HWY 20
 FIELD ID/NAME 3534 WBID 49B RECEIVING BODY OF WATER Choctawhatchee Bay

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) ☐						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) <u>50m</u> Depth (m)/Velocity (m/sec) Transect <u>111</u> 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>7.8</u>		<u>0.15</u> m/s <u>0.35</u> m/s <u>0.20</u> m/s	
High Water Mark: <u>2.1</u> + <u>4.8</u> = <u>6.9</u> (m) (above present water level) (present depth) (above bed)				Artificially Impounded ☐ Yes ☒ No		<u>71.5</u> m deep <u>4.8</u> m deep <u>0.8</u> 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 ☐
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SUBSTRATE TYPE

Assessment Tool: ☒ SCI ☒ RPS ☐ LVS
☐ LCI ☐ BioRecon

	% Coverage	INVERT # Times Sampled	PERI # Times Sampled
Woody Debris (Snags)	<u>4.9</u>	<u>7</u>	
Undercut Banks / Roots	<u>3.0</u>	<u>7</u>	
Leaf Packs or Mat			
Aquatic Vegetation			
Rock or Shell Rubble..			
Sand.....	<u>92.1</u>	<u>0</u>	
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>0.3</u>	<u>18.94</u>	<u>6.75</u>	<u>7.22</u>	<u>77.8</u>	<u>92</u>	<u>0.04</u>	<u>0.8</u>
Mid:								☐ VOB
Bottom	<u>4.3</u>	<u>18.90</u>	<u>6.68</u>	<u>7.19</u>	<u>77.4</u>	<u>92</u>	<u>0.04</u>	TOTAL DEPTH <u>4.8</u>
Meter ID: <u>132237</u>								

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: _____ 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

	Not Obs.	Rare	Common	Abundant
Periphyton:	☐	☐	☐	☒
Fish:	☐	☐	☒	☐
Aquatic Plants:	☐	☒	☐	☐
Iron/Sulfur Bacteria:	☒	☐	☐	☐

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

AMBIENT FIELD CONDITIONS / NOTES: TREND SCI.
HA ID 15098, RPS ID 8964

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

SAMPLING TEAM Frank Butera, Stopher Slade

SIGNATURE:

Frank Butera

DATE:

04/11/2018

Stream/River Habitat Sketch Sheet, Form FD 9000-4 (June 1, 2001)

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

100	BF	150	(A)	121	Snag 62
+	%S	5-30		55	Root 35
+	Vg				LP
90	BF	140		101	Snag 50
+	%S	5-30		385	Root 33
+	Vg				LP
80	BF	140		81	Snag 48
+	%S	5-15		145	Root 25
+	Vg				LP
70	BF	140		51	Snag 45
+	%S	5-20		105	Root 30
+	Vg				LP
60	BF	160	(A)	515	Snag 70
+	%S	5-40		110	Root 55
+	Vg				LP
50	BF	150		115	Snag 65
+	%S	5-30		510	Root 40
+	Vg				LP
40	BF	140	(A)	110	Snag 50
+	%S	5-20		510	Root 30
+	Vg				LP
30	BF	140	(A)	151	Snag 55
+	%S	5-20		855	Root 28
+	Vg				LP
20	BF	140	(S)	151	Snag 55
+	%S	5-20	(A)	55	Root 25
+	Vg				LP
10	BF	130	(H.W. 2.1)	265	Snag 35
+	%S	5-20		55	Root 22
+	Vg				LP

Left Bank

Downstream

SB10 ID
78324

WIN ID 3534

Substrates: Code key, draw proportionate habitat abundance.



Snags

$$\frac{535}{10900} = 4.9\%$$



Roots/undercut banks

$$\frac{323}{10900} = 3.0\%$$



Leaf Packs (or mats)



Macrophytes



$$\text{SAND } \frac{1004}{10900} = 9.2\%$$



Velocity:

Note where velocity measures were taken. 50m

Habitat Smothering:

Note areas (on map) where sand or silt is something 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.

Average width 109m

Average depth m

WQ & chemistry taken @ 50 m

S200. Choctawhatchee River @ HWY 20

Project. Z1ST1804

Sampled By/Date: FS, SS / 4-14-2013

0 m Latt. 30.45131

0 m Long. -85.89742

100 m Latt 30.45217

100 m Long -85.89724

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

SAMPLING AGENCY: FL DEP - NWROC		STORET STATION NUMBER: 3534	DATE (MM/DD/YY): 04/11/18	RECEIVING BODY OF WATER: Choctawhatchee Bay
REMARKS: WBID 683	COUNTY: Walton/ Washington	LOCATION: S200. Choctawhatchee River @ HWY 20.		FIELD ID/NAME: 3534

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 10	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1
Substrate Availability 7	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 20	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 13 ----- Primary Score 50	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 19	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 10 Left Bank 6	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 9 Left Bank 9 ----- Secondary Score 73	10 9	8 7 6	5 4	3 2 1

123

TOTAL SCORE

Date: 04/11/2018	Analyst: Frank Butera	Signature: 
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SBIO ID: **7834** HA ID: **15098**

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: S200 Choctawhatchee River @ HWY 20

County:

Date:

4/11/2018

Investigators: F. Butera, S. Slade

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	2	E	Φ	60	1	2	E	Φ
	2	2	E			2	2	E	
	3	2	E			3	2	E	
	4	2	E			4	2	E	
	5	2	E			5	2	E	
	6	2	E			6	2	E	
	7	2	E			7	2	E	
	8	2	E			8	2	E	
	9	2	E			9	2	E	
10	1	2	E	Φ	70	1	2	E	Φ
	2	2	E			2	2	E	
	3	2	E			3	2	E	
	4	2	E			4	2	E	
	5	2	E			5	2	E	
	6	2	E			6	2	E	
	7	2	E			7	2	E	
	8	2	E			8	2	E	
	9	2	E			9	2	E	
20	1	2	E	Φ	80	1	2	E	Φ
	2	2	E			2	2	E	
	3	2	E			3	2	E	
	4	2	E			4	2	E	
	5	2	E			5	2	E	
	6	2	E			6	2	E	
	7	2	E			7	2	E	
	8	2	E			8	2	E	
	9	2	E			9	2	E	
30	1	2	E	Φ	90	1	2	E	Φ
	2	2	E			2	2	E	
	3	2	E			3	2	E	
	4	2	E			4	2	E	
	5	2	E			5	2	E	
	6	2	E			6	2	E	
	7	2	E			7	2	E	
	8	2	E			8	2	E	
	9	2	E			9	2	E	
40	1	2	E	Φ	100	1	2	E	Φ
	2	2	E			2	2	E	
	3	2	E			3	2	E	
	4	2	E			4	2	E	
	5	2	E			5	2	E	
	6	2	E			6	2	E	
	7	2	E			7	2	E	
	8	2	E			8	2	E	
	9	2	E			9	2	E	
50	1	2	E	Φ		1	2	E	
	2	2	E			2	2	E	
	3	2	E			3	2	E	
	4	2	E			4	2	E	
	5	2	E			5	2	E	
	6	2	E			6	2	E	
	7	2	E			7	2	E	
	8	2	E			8	2	E	
	9	2	E			9	2	E	

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%.

STORET Station Number:
3534

Field ID.

Secchi depth 0.3
Estimated? N

points ranked 4-6 6
total points assessed 77
% points ranked 4-6

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

RPS ID 8964

VPDB ID N/A

SBIO ID 78324

[illegible]

VPDB ID 21A