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Mannering & CVC Collieries

Annual seagrass survey of Chain Valley Bay, Summerland Point, Bardens Bay and Crangan Bay, Lake Macquarie, NSW

by Dr Emma Laxton

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Summary

The annual seagrass survey was conducted from 9th to 12th June 2023 off Summerland Point, Frying Pan Bay, Sugar Bay, Chain Valley Bay, Bardens Bay and Crangan Bay, Lake Macquarie. A total of 50 transects were photographed.

The average length of transects in Chain Valley Bay, northern shore Summerland Point, and western shore Summerland Point was 65.3m, 59.9m and 40.4m respectively. The average length of transect in Bardens Bay and Sugar Bay was 26.6m and 55.1m. The transects along Crangan Bay off Gwandalan had an average of 38.9m. The transects with the greatest lengths were Transects E9 (152m), F2 (131m), S4 (105m) and C3 (91m). The transects with the shortest lengths were Transects C1, C2, T2, C6 and A6, all approximately 14m in length.

Water Temperature ranged from 16.58^{o}C to 19.04^{o}C, with a mean water temperature of 17.70^{o}C. Conductivity ranged from 55.71 mS/cm to 56.22 mS/cm. Mean conductivity was 55.98 mS/cm. Salinity ranged from 36.92 ppt to 37.33 ppt. Mean salinity was 37.16 ppt. Turbidity ranged from 9.4 NTU to 29.2 NTU, with a mean of 13.54 NTU. pH was 7.75 at T1. Dissolved oxygen (% saturation) ranged from 84.6% to 135.7%. Mean dissolved oxygen was 100.7% saturation. Super saturation of dissolved oxygen was due to the oxygen production by the seagrasses and epiphytic algae.

Two species of seagrass were identified in the study area, *Zostera capricorni* and *Halophila ovalis. Zostera capricorni* had the greatest coverage and was found along the entire length of the transects. *Halophila ovalis* was found predominantly in the shallower waters.

The growth form of *Zostera capricorni* in the Summerland Point, Frying Pan Bay and Sugar Bay region and the Crangan Bay region was predominantly short leaved. The growth form of *Zostera capricorni* in Chain Valley Bay and Bardens Bay was long leaved.

In June 2023, seagrass cover ranged from 50.2% to 96.8% on the northern shore of Summerland Point and Frying Pan Bay; 74.4% to 92.3% along the western shore of Summerland Point; 74.4% to 92.3% on the western shore of Summerland Point; 75.0% to 99.3% in Chain Valley Bay; 74.3% to 97.5% in Bardens Bay; 90.7% to 96.3% in Sugar Bay; and 82.1% to 95.2% in Crangan Bay.

At the time of survey, transects with the highest coverage of *Halophila ovalis* were E6 (5.1%), S2 (3.5%), C1 (2.8%) and A1 (2.7%).

The health and condition of the seagrasses were good, with most seagrasses free or only lightly fouled with epiphytic algae.

Three species of alga were recorded in the study area, namely *Cystoseira trinodis* (synonym *Cystophyllum onustum*), *Codium fragile* and green filamentous algae. The transects with the highest total coverage of *Cystoseira* were F2 (28.5% total coverage), A1 (9.1%), A2 (8.6%), A3 (7.1%), E1 (5.1%) and T2 (4.9%). *Codium fragile* was observed at transects A1 (0.4% total coverage) and C1 (0.9% total coverage) only. Transects E10 and S1 had the highest average total coverage of filamentous algae, 6.8% and 4.6% respectively.

Seagrass cover continues to be high and consistent, with only six transects showing a slight decline in seagrass coverage in the June 2023 survey compared to previous years. Changes in coverage were due to a high presence of the alga *Cystoseira trinodis* and changes in survey methods which are enabling the photography of seagrasses up to the water's edge. *Halophila ovalis* is often found growing in sand along shorelines in the very shallow waters. Photographing this band of sand to capture the presence of *Halophila ovalis* has affected the statistics by reducing the presence of *Zostera* and increasing the presence of bare ground.

The increase in percentage cover of seagrasses marks the decrease in bare ground in the study area. Bare ground decreased from 38.13 percent in 2011 to 9.59 percent in 2023 in the Summerland Point, Frying Pan Bay and Sugar Bay region. In the Chain Valley Bay region, bare ground decreased from 13.32 percent in 2011 to 6.41 percent in 2023. In the Crangan Bay region, bare ground decreased from 26.98 percent in 2011 to 5.35 percent in 2023. Seagrass cover in Bardens Bay has mostly been around 90 percent since 2011.

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1. Introduction

Lake Macquarie is the largest saline lake in New South Wales. It lies on the central coast between Sydney and Newcastle within the local government areas of Central Coast Council and Lake Macquarie Council. Lake Macquarie has a catchment of 700 square kilometers and a water surface area of 125 square kilometers (Bell & Edwards, 1980). The lake has a permanent entrance to coastal waters at Swansea.

The catchment of Lake Macquarie is largely rural with large areas of bushland and grazing land. The shoreline of Lake Macquarie is heavily urbanized, especially the eastern, western and northern shorelines. The region has a relatively long history of coal mining and power generation, with mining occurring since the late 1800s and the first power station at Lake Macquarie commencing operations in 1958.

Chain Valley Colliery is situated on the southern shores of Lake Macquarie near Mannering Park, NSW. The mine has been operating since 1963. Mining is continuing within the Chain Valley Coal Lease Area using the miniwall method. Prior to mining, there were three economically viable seams in the lease area, namely the Wallarah seam (not mined since 1997); the Great Northern seam, and the Fassifern seam. In 2018 Chain Valley Colliery went into voluntary receivership and was taken over by Great Southern Energy Pty Ltd (trading as Delta Coal) to provide coal for Vales Point Power Station.

Delta Coal is currently mining the Fassifern Seam beneath Lake Macquarie. To protect the lake foreshore, a protection zone has been established as part of the extraction plan. This zone, known as the High Water Mark (HWM) Subsidence Barrier, was calculated using a 35^{o} angle of draw from the depth of mining. The zone is approximately 130 meters wide.

J.H. & E.S. Laxton – Environmental Consultants P/L was engaged by Mr. Lachlan McWha, Environmental Compliance Coordinator for Chain Valley Colliery, to assess the potential effects of underground mining on seagrasses in Lake Macquarie. The mine is currently undertaking first workings.

The annual seagrass survey was conducted from the 9^{th} to 12^{th} June 2023.

2. Factors affecting the depth of water in Lake Macquarie

The bathymetric chart (Figure 2.1) of Lake Macquarie shows water depths relative to AHD. The actual depth of water above the lakebed varied greatly, between 0 and 1.3m above AHD over a year.

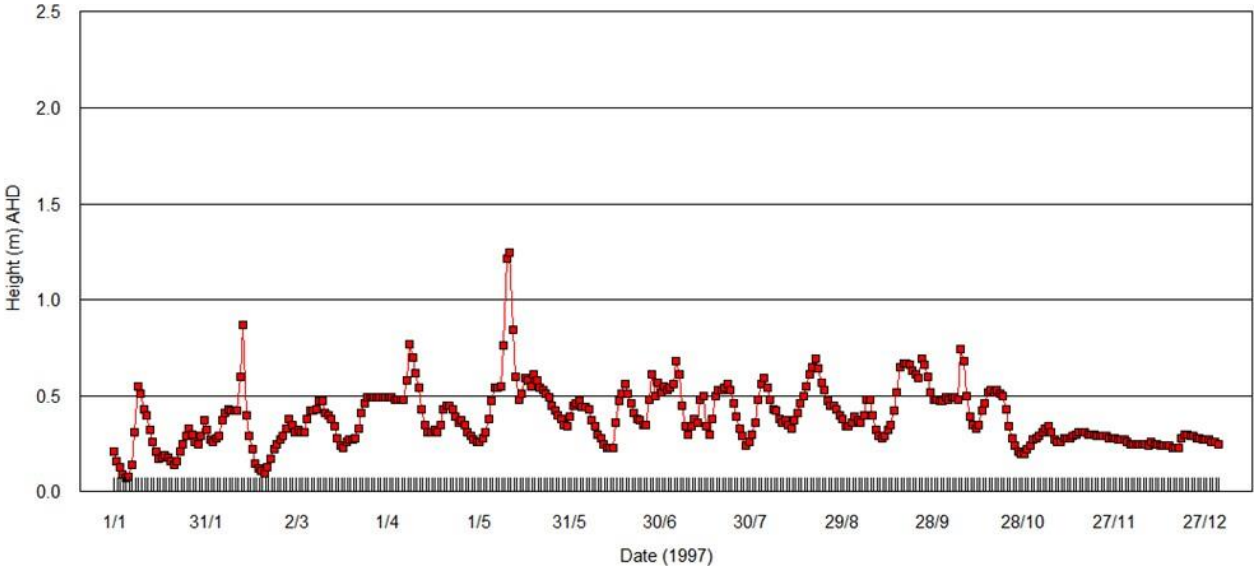

Figure 2.1 Water level changes in a coastal lagoon with an entrance open to coastal waters

Water depths in coastal saline lakes with an open entrance to coastal waters vary due to combinations of the following factors:

- The body of Lake Macquarie is subject to tidal influence. The height of the tidal prism at Swansea Head may reach almost 2m (during spring tides) but by the time the body of the lake is reached, the tidal prism has been reduced to around 0.05m.

- The height of coastal waters and coastal lakes are influenced by changes in atmospheric pressure. The Tasman Sea acts as a huge barometer. When the atmospheric pressure is high the sea surface is depressed. This causes water to drain from Lake Macquarie causing the depth of water in the body of the lake to decrease. When the atmospheric pressure over the Tasman Sea is low, the surface of the sea bulges upwards. This raising of sea level causes water to flow into Lake Macquarie, increasing the water depth.

- Low pressure systems in the Tasman Sea almost always generate strong winds and

coastal rainfall. The strong winds cause large swells to form that impact the coast. Wave setup at the entrance to Lake Macquarie causes the water level in the lake to rise as large volumes of seawater enter the system.

- Rainfall during a period of low atmospheric pressure causes runoff into catchment rivers and streams to increase. When this extra water reaches the body of Lake Macquarie, the water level rises in proportion to the runoff volume. This water is prevented from exiting the lake by wave setup at the entrance and the state of the tide. Under these circumstances, the level of the lake can rise to heights of a meter or more above AHD.

3. Factor affecting presence of seagrasses in Lake Macquarie

Observations made over many years (Laxton, 2007) show that photosynthetic benthic organisms (seagrasses and algae) are confined to the shallow water areas around the perimeter of Lake Macquarie. In Chain Valley Bay, Bardens Bay and off Summerland Point, seagrasses and benthic algae grow between 0 and -1.89m below AHD (except in September 2018 when *Halophila* and some algae were found in 4.5 to 6m of water at some stations due to low rainfall and clear water).

The water quality study of Lake Macquarie, carried out between 1983 and 1997, measured Photosynthetically Active Radiation (PAR) changes with depth monthly at twelve stations throughout the lake during the years 1983 to 1985. Data collected off Wyee Point are presented in Figure 3.1 and Figure 3.2.

It was found that only 14% of the light present at the surface reached a depth of 2.0m below the surface. By 6m below the surface only between 2% and 4% of PAR remained. Seagrasses and algae barely survived at 14% of the surface radiation. At 6m below the surface, they were not able to grow.

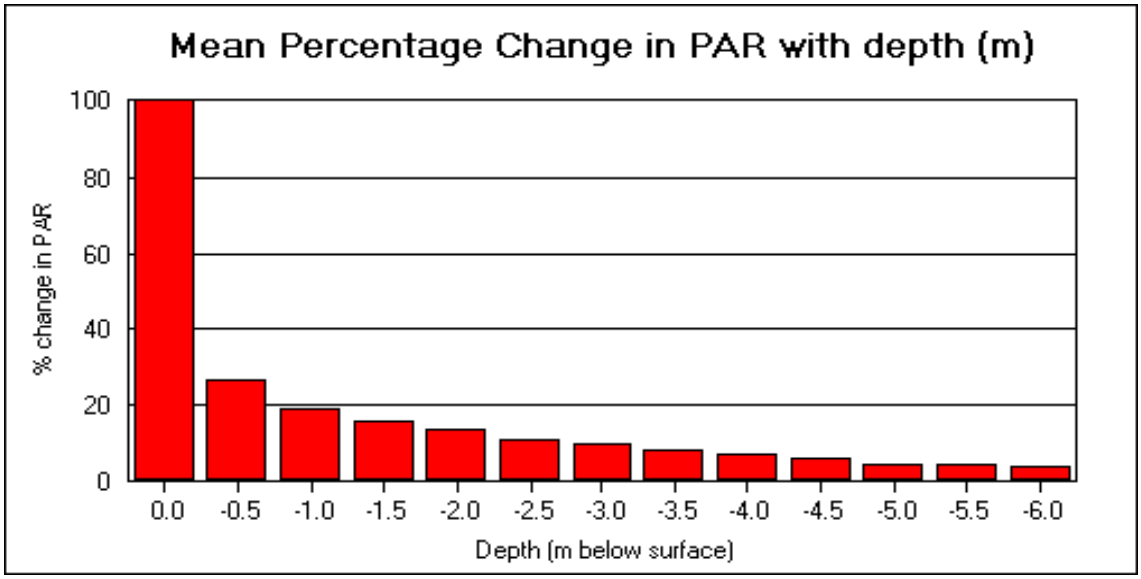

Figure 3.1 Mean percentage changes in PAR with depth at Wyee Point over 12 months

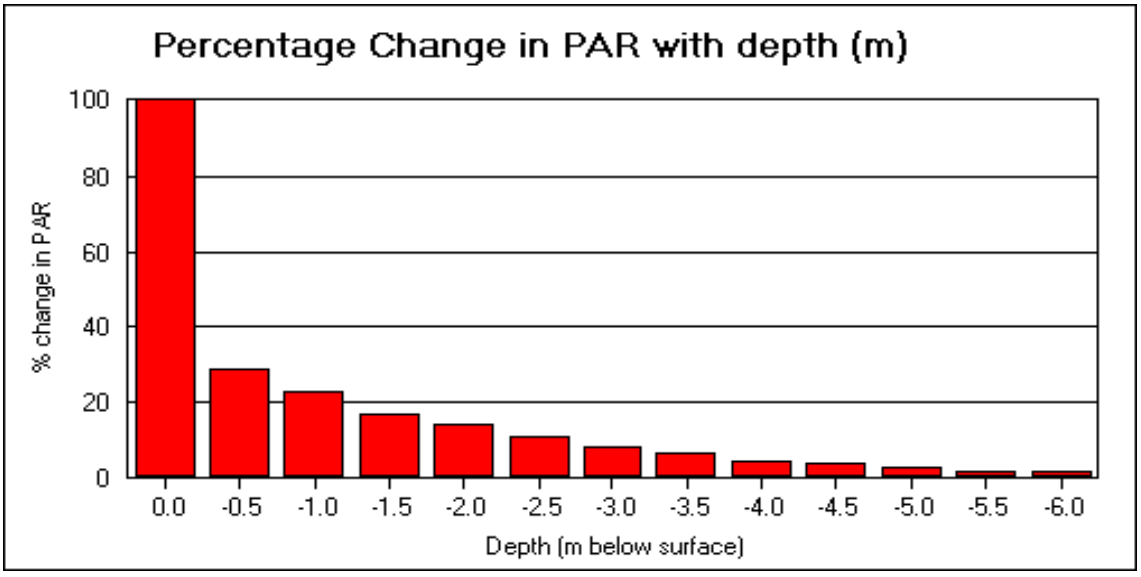

Figure 3.2 Actual percentage changes in PAR at Wyee Point (morning of 21 Apr 1983)

4. Seagrass survey methods

The seagrass survey was conducted from 9th to 12th June 2023 using a GoPro video camera.

The water depth along most of the transect lines ranged from around 0.1 to 1.8m. Transect lines were photographed from the outer end to the inner end.

The video was examined by viewing still frames approximately every 1m along the transect. The following information was recorded:

1. The transect number and the date the video was taken.
2. The percentage areas occupied by the following plants in each still photograph:
   (a) % area occupied by long leaved seagrass *Zostera capricorni*;
   (b) % area occupied by short leaved seagrass *Zostera capricorni*;
   (c) % area occupied by the small seagrass *Halophila ovalis*;
   (d) degree of fouling of the seagrass leaves by algae (0=no fouling, 1=light fouling, 2=heavy fouling);
   (e) % area occupied by the large brown alga *Cystoseira trinodis*;
   (f) % area occupied by the green alga *Codium fragile*
   (g) % area occupied by filamentous and thallous algae (green or brown algae);
   (h) % area of uncolonised ground (bare ground, no macroscopic epibenthos).

5. Location of seagrass transects

Figure 5.1 shows the location of seagrass transects in Bardens Bay, Sugar Bay, Frying Pan Bay, Summerland Point, Chain Valley Bay and Crangan Bay. From 2018 to 2023, a total of 50 transects were photographed annually:

- Transects E1 to E16 are established experimental transects in Chain Valley Bay and Summerland Point
- Transects T1 to T8 are established experimental transects along Summerland Point
- Transects C1 to C4 are established control stations in Crangan Bay
- Transect L1 was established in Chain Valley Bay in 2015
- Transects A1 to A6 are establised experimental stations in Bardens Bay. They were first surveyed in 2014
- Transects C5 to C6 were established in 2018
- Transects F1 to F7 along Summerland Point were established in 2018, and
- Transects S1 to S6 were established in Sugar Bay in 2018.

Figure 5.1 Locations of seagrass transects in Bardens Bay, Sugar Bay, Frying Pan Bay, Summerland Point, Chain Valley Bay and Crangan Bay, Lake Macquarie.

Tables 5.1 to 5.6 show the precise locations of the inner and outer ends of the permanent seagrass monitoring transects in Summerland Point, Chain Valley Bay, Bardens Bay, Sugar Bay and Crangan Bay as determined by differential GPS. The approximate lengths of the transects are also presented.

Table 5.1 Coordinates of inner and outer ends of permanent seagrass transects off northern shore Summerland Point and Frying Pan Bay

Transect No.	Easting	Northing	Transect No.	Easting	Northing	Transect Length (m)
C5 inner	56365676.16	6333038.68	C5 outer	56365702.98	6333084.58	41.57
C6 inner	56366045.20	6332831.77	C6 outer	56366058.95	6332870.63	13.67
F1 inner	56366320.96	6333281.31	F1 outer	56366285.58	6333249.79	47.11
F2 inner	56366342.19	6333330.55	F2 outer	56366290.92	6333450.31	130.55
F3 inner	56366611.11	6333163.11	F3 outer	56366621.00	6333228.01	65.64
F4 inner	56366968.01	6333242.46	F4 outer	56366918.81	6333285.18	65.04
F5 inner	56367106.95	6333361.98	F5 outer	56367068.97	6333421.28	70.46
F6 inner	56367271.10	6333493.19	F6 outer	56367202.42	6333522.83	74.81
F7 inner	56367402.36	6333682.09	F7 outer	56367374.73	6333694.93	30.47

Table 5.2 Coordinates of inner and outer ends of permanent seagrass transects along western shore Summerland Point

Transect No.	Easting	Northing	Transect No.	Easting	Northing	Transect Length (m)
E7 Inner	56385350.74	6332350.32	**E7 Outer**	56365297.96	6332344.97	52.44
T1 inner	56365439.70	6333217.30	**T1 outer**	56365442.62	6333264.67	47.48
T2 inner	56365402.69	6333100.83	**T2 outer**	56365388.27	6333100.67	14.39
T3 inner	56365400.34	6332951.79	**T3 outer**	56365384.15	6332949.28	16.32
T4 inner	56365377.42	6332816.19	**T4 outer**	56365357.10	6332831.62	25.14
T5 inner	56365350.31	6332990.09	**T5 outer**	56365309.37	6332575.63	49.14
T6 inner	56365347.91	6332380.19	**T6 outer**	56365300.00	6332337.91	63.53
T7 inner	56365320.68	6332207.46	**T7 outer**	56365267.96	6332206.74	52.90
T8 inner	56365336.86	6332262.46	**T8 outer**	56365295.11	6332270.42	42.36

Table 5.3 Coordinates of inner and outer ends of permanent seagrass transects in Chain Valley Bay

Transect No.	Easting	Northing	Transect No.	Easting	Northing	Transect Length (m)
E1 Inner	56363985.56	6331796.12	**E1 Outer**	56364003.66	6331816.06	26.25
E2 Inner	56364035.74	6331701.21	**E2 Outer**	56364076.97	6331716.45	44.60
E3 Inner	56363953.19	6331404.63	**E3 Outer**	56364027.57	6331417.71	75.09
E4 Inner	56364220.41	6331078.04	**E4 Outer**	56364259.92	6331122.01	59.30
L1 inner	56364292.62	6330367.65	**L1 outer**	56364304.40	6330399.71	20.00
E5 Inner	56365005.52	6330163.60	**E5 Outer**	56365034.44	6330225.24	67.45
E6 Inner	56365118.34	6329788.72	**E6 Outer**	56365174.56	6329802.58	57.97
E8 Inner	56365128.31	6331795.44	**E8 Outer**	56365096.58	6331811.56	35.36
E9 Inner	56365040.02	6331607.80	**E9 Outer**	56364913.26	6331523.98	152.68
E10 Inner	56365422.82	6331427.70	**E10 Outer**	56365394.86	6331361.84	71.01
E11 Inner	56365554.10	6331410.24	**E11 Outer**	56365524.31	6331343.51	73.21
E12 Inner	56365749.60	6331328.35	**E12 Outer**	56365735.31	6331284.62	46.22
E13 Inner	56365990.71	6331278.46	**E13 Outer**	56365970.44	6331190.80	89.54
E14 Inner	56366447.51	6331046.57	**E14 Outer**	56366370.49	6330984.28	98.63
E15 Inner	56366657.26	6330098.71	**E15 Outer**	56366610.88	6330167.27	82.85
E16 Inner	56366310.52	6329644.48	**E16 Outer**	56366272.93	6329666.33	44.26

Table 5.4 Coordinates of inner and outer ends of permanent seagrass transects in Bardens Bay.

Transect No.	Easting	Northing	Transect No.	Easting	Northing	Transect Length (m)
A1 inner	56364006.28	6333892.16	A1 outer	56364048.43	6333899.34	42.60
A2 inner	56363979.36	6334006.51	A2 outer	56364002.16	6334013.22	24.00
A3 inner	56363918.06	6334157.90	A3 outer	56363927.53	6334165.80	34.80
A4 inner	56363633.48	6334426.20	A4 outer	56363660.06	6334425.14	26.30
A5 inner	56363686.18	6335068.50	A5 outer	56363688.41	6335049.82	18.30
A6 inner	56364434.63	6334566.67	A6 outer	56364422.84	6334560.15	13.70

Table 5.5 Coordinates of inner and outer ends of permanent seagrass monitoring transects in Sugar Bay.

Transect No.	Easting	Northing	Transect No.	Easting	Northing	Transect Length (m)
S1 inner	56365009.02	6334470.41	S1 outer	56365077.72	6334481.77	69.64
S2 inner	56364642.29	6334943.57	S2 outer	56364673.53	6334939.82	31.46
S3 inner	56365017.76	6335008.93	S3 outer	56365041.97	6334932.70	79.98
S4 inner	56365235.10	6334992.86	S4 outer	56365217.43	6334889.31	105.05
S5 inner	56365575.20	6334709.08	S5 outer	36365569.66	6334693.44	16.60

S6 inner	56366144.58	6334765.21	S6 outer	56366172.04	6334761.92	27.67

Table 5.6 Coordinates of inner and outer ends of permanent seagrass transects in Crangan Bay.

Transect No.	Easting	Northing	Transect No.	Easting	Northing	Transect Length (m)
C1 Inner	56368596	6332235	C1 Outer	56368616	6332250	13.64
C2 Inner	56368619	6332147	C2 Outer	56368658	6332151	13.84
C3 Inner	56368524	6331811	C3 Outer	56368538	6331806	90.91
C4 Inner	56368467	6331435	C4 Outer	56368486	6331421	37.50

The average length of transects in Chain Valley Bay, northern shore Summerland Point, and western shore Summerland Point was 65.3m, 59.9m and 40.4m respectively. The average length of transect in Bardens Bay and Sugar Bay was 26.6m and 55.1m. The transects along Crangan Bay off Gwandalan had an average of 38.9m.

The transects with the greatest lengths were Transects E9 (152m), F2 (131m), S4 (105m) and C3 (91m). The transects with the shortest lengths were Transects C1, C2, C6, T2 and A6, all approximately 14m in length.

6. Physical characteristics of water in Lake Macquarie – June 2023

The physical characteristics of the waters above the seagrass beds in Lake Macquarie were measured on 9th to 12th June 2023 using a calibrated Yeo-Kal 618RU Analyser. Units of measurement were Temperature (TEMP) - degrees Celsius; Conductivity (COND) - mS/cm; Salinity (SAL) - parts per thousand; Dissolved Oxygen - % saturation and mg/L; and Turbidity (TURB) - NTU. At the time of sampling, the pH probe developed issues. pH was therefore recorded at transect T1 only.

The physical characteristics of the bottom water at each transect in the study area of Lake Macquarie are shown in **Table 6.1** and were as follows:

- Water Temperature ranged from 16.58ºC at Transect C1 to 19.04ºC at Transect A1. Mean water temperature was 17.70ºC.
- Conductivity ranged from 55.71 mS/cm at Transect E6 to 56.22 mS/cm at Transect F3. Mean conductivity was 55.98 mS/cm.

- Salinity ranged from 36.92 ppt at Transect E6 to 37.33 ppt at Transect C3. Mean salinity was 37.16 ppt.
- Turbidity ranged from 9.4 NTU at Transect S4 to 29.20 NTU at Transect S5. Mean turbidity was 13.54 NTU.
- pH was 7.75 at Transect T1.
- Dissolved oxygen (% saturation) ranged from 84.6% at Transect A4 to 135.7% at Transect C6. Mean dissolved oxygen was 100.7% saturation. Super saturation of dissolved oxygen was the result of oxygen production by the seagrasses and epiphytic algae.

Rainfall in the months preceding the survey was 101.4mm, 113.8mm and 52.0mm for March, April and May 2023 respectively (Cooranbong Lake Macquarie AWS No. 061412). By 12th June a further 1.6 mm had fallen in the catchment.

Table 6.1 Physical characteristics of waters above seagrass transects, Lake Macquarie - June 2023

Northern Shore Summerland Point and Frying Pan Bay

Station	Temperature ºC	Conductivity mS/cm	Salinity ppt	Dissolved Oxygen % sat	Dissolved Oxygen mg/L	Turbidity NTU
C5	18.02	56.01	37.18	113.9	8.64	10.1
C6	18.30	56.04	37.21	135.7	10.40	11.5
F1	18.03	56.01	37.19	104.2	7.90	22.4
F2	18.17	56.04	37.21	99.8	7.55	18.0
F3	17.75	56.22	37.32	118.5	9.01	11.2
F4	17.88	56.12	37.25	107.5	8.18	10.9
F5	17.70	56.06	37.21	105.5	8.02	10.4
F6	17.71	56.02	37.21	104.4	7.96	10.4
F7	17.64	56.04	37.20	102.7	7.85	18.1
Average	**17.91**	**56.06**	**37.22**	**110.24**	**8.39**	**13.67**
Min	**17.64**	**56.01**	**37.18**	**99.80**	**7.55**	**10.10**
Max	**18.30**	**56.22**	**37.32**	**135.70**	**10.40**	**22.40**

Western Shore Summerland Point

Station	Temperature ºC	Conductivity mS/cm	Salinity ppt	Dissolved Oxygen % sat	Dissolved Oxygen mg/L	Turbidity NTU
E7	17.96	55.98	37.15	95.5	7.24	15.1
T1	17.81	56.21	37.26	89.6	6.75	16.7
T2	17.92	56.08	37.22	98.1	7.43	14.9
T3	17.88	56.03	37.18	92.2	7.02	14.7
T4	17.91	55.92	37.15	91.7	6.98	14.8
T5	17.93	55.96	37.14	93.2	7.05	15.4
T6	17.95	55.95	37.13	94.2	7.16	15.1
T7	17.92	55.96	37.15	105.7	8.02	14.8
T8	18.03	55.95	37.13	96.0	7.29	14.4
Average	**17.92**	**56.00**	**37.17**	**95.13**	**7.22**	**15.10**
Min	**17.81**	**55.92**	**37.13**	**89.60**	**6.75**	**14.40**
Max	**18.03**	**56.21**	**37.26**	**105.70**	**8.02**	**16.70**

Chain Valley Bay

Station	Temperature ºC	Conductivity mS/cm	Salinity ppt	Dissolved Oxygen % sat	Dissolved Oxygen mg/L	Turbidity NTU
E1	18.42	55.83	37.11	110.8	8.34	11.7
E2	18.22	55.97	37.10	110.1	8.44	11.6
E3	18.13	55.93	37.14	105.6	7.98	11.5
E4	17.81	55.82	37.20	112.4	8.76	10.7
L1	17.87	55.99	37.04	103.4	7.92	20.7
E5	17.26	55.79	37.02	107.6	8.27	11.2
E6	17.33	55.71	36.92	103.2	7.94	12.4
E8	17.99	56.00	37.18	111.9	8.55	19.6
E9	17.75	55.93	37.12	88.3	6.91	14.2
E10	17.52	55.92	37.10	92.2	7.06	12.6
E11	17.53	55.95	37.13	91.9	7.04	12.6

E12	17.62	55.98	37.13	93.7	7.15	12.0
E13	17.39	55.96	37.13	93.3	7.17	10.4
E14	17.37	55.94	37.13	98.4	7.59	10.7
E15	16.59	55.80	37.03	103.9	8.10	11.5
E16	16.62	55.83	37.04	102.4	7.98	11.0
Average	**17.59**	**55.90**	**37.10**	**101.82**	**7.83**	**12.78**
Min	**16.59**	**55.71**	**36.92**	**88.30**	**6.91**	**10.40**
Max	**18.42**	**56.00**	**37.20**	**112.40**	**8.76**	**20.70**

Bardens Bay

Station	Temperature ºC	Conductivity mS/cm	Salinity ppt	Dissolved Oxygen % sat	Dissolved Oxygen mg/L	Turbidity NTU
A1	19.04	55.92	37.10	112.7	8.43	13.1
A2	18.89	55.93	37.12	112.8	8.41	13.1
A3	18.77	55.92	37.10	122.3	9.14	13.5
A4	17.31	56.08	37.19	84.6	6.46	13.7
A5	17.30	55.95	37.13	87.8	6.75	13.3
A6	17.37	55.94	37.16	88.5	6.77	12.9
Average	**18.11**	**55.96**	**37.13**	**101.45**	**7.66**	**13.27**
Min	**17.30**	**55.92**	**37.10**	**84.6**	**6.46**	**12.9**
Max	**19.04**	**56.08**	**37.19**	**122.3**	**9.14**	**13.7**

Sugar Bay

Station	Temperature ºC	Conductivity mS/cm	Salinity ppt	Dissolved Oxygen % sat	Dissolved Oxygen mg/L	Turbidity NTU
S1	17.78	55.91	37.12	92.4	7.02	13.2
S2	17.06	55.95	37.15	92.8	7.16	11.7
S3	17.50	55.92	37.12	95.7	7.33	9.7
S4	17.53	55.93	37.12	96.1	7.38	9.4
S5	17.99	55.94	37.09	99.3	7.56	29.2

S6	17.75	55.93	37.14	112.1	8.56	9.5
Average	**17.60**	**55.93**	**37.12**	**98.07**	**7.50**	**13.78**
Min	**17.06**	**55.91**	**37.09**	**92.4**	**7.02**	**9.4**
Max	**17.99**	**55.95**	**37.15**	**112.1**	**8.56**	**29.2**

Crangan Bay Gwandalan

Station	Temperature ºC	Conductivity mS/cm	Salinity ppt	Dissolved Oxygen % sat	Dissolved Oxygen mg/L	Turbidity NTU
C1	16.58	56.11	37.29	85.1	6.65	11.7
C2	16.70	56.21	37.32	89.7	6.95	10.3
C3	16.65	56.20	37.33	91.0	7.10	15.1
C4	16.68	56.12	37.26	93.3	7.29	14.4
Average	**16.65**	**56.16**	**37.30**	**89.8**	**7.00**	**12.88**
Min	**16.58**	**56.11**	**37.26**	**85.1**	**6.65**	**10.3**
Max	**16.70**	**56.21**	**37.33**	**93.3**	**7.29**	**15.1**

All Stations

	Temperature ºC	Conductivity mS/cm	Salinity ppt	Dissolved Oxygen % sat	Dissolved Oxygen mg/L	Turbidity NTU
Average	17.70	55.98	37.16	101.0	7.69	13.5
Min	16.58	55.71	36.92	84.6	6.46	9.4
Max	19.04	56.22	37.33	135.7	10.40	29.20

7. Plant species found in the study area

Plate 7.1 provides information about the plants monitored in the seagrass surveys of Lake Macquarie, NSW from 2007 to 2023. Two seagrass species and five species of alga have been identified in the study area.

Plate 7.1 Plant species found in the study area of Lake Macquarie (2007 - 2023).

Kingdom: Plantae
Phylum: Magnoliophyta
Class: Liliopsida
Order: Potamogetonales
Family: Zosteraceae
Genus: *Zostera*
Species: *Z. capricorni*

Remarks: *Zostera capricorni* is a species of eelgrass native to the seacoasts of New Guinea, Queensland, New South Wales, Victoria, South Australia, Norfolk Island and the North Island of New Zealand. It was first discovered at Moreton Bay in Queensland in 1875.

Kingdom: Plantae
Phylum: Magnoliophyta
Class: Liliopsida
Order: Hydrocharitales
Family: Hydrocharitaceae
Genus: *Halophila*
Species: *H. ovalis*

Remarks: *Halophila ovalis* commonly known as paddle weed, spoon grass or dugong grass, is a seagrass in the family Hydrocharitaceae. It is a small herbaceous plant that occurs in seabeds and other saltwater environments in the Indo-Pacific.

Kingdom: Plantae
Phylum: Phaeophyta
Class: Phaeophyceae
Order: Fucales
Family: Hormosiraceae
Genus: *Hormosira*
Species: *H. banksii*

Remarks: *Hormosira banksii*, also known as Neptune's necklace, Neptune's pearls, sea grapes, or bubbleweed is a species of brown alga native to Australia and New Zealand. It is abundant on low-energy rocky reefs at midtide levels, where it outcompetes other algal species due to its high tolerance to desiccation. First recorded at Transect C1 in Crangan Bay on 12th June 2010.

Kingdom: Plantae
Phylum: Phaeophyta
Class: Phaeophyceae
Order: Fucales
Family: Sargassaceae
Genus: *Sargassum*

Remarks: *Sargassum* is a genus of brown macroalgae in the order Fucales. Numerous species are distributed throughout the temperate and tropical oceans of the world, where they generally inhabit shallow water and coral reefs, and the genus is widely known for its planktonic species.

Kingdom: Plantae
Phylum: Phaeophyta
Class: Phaeophyceae
Order: Fucales
Family: Cystoseiraceae
Genus: *Cystoseira*
Species: *C. trinodis*
Synonym: *Cystophyllum onustum*

Remarks: A macroalgae widespread in Australia and the Indo-Pacific region. The plants vary considerably in size and form, with tall thin plants up to 1.5m high in very sheltered and estuarine waters, or more compact thicker-stemmed plants up to 30cm high in oceanic reef pools. Characterised by small peg-like projections on the lower parts of the main branches.

Kingdom: Plantae
Phylum: Chlorophyta
Class: Ulvophyceae
Order: Bryopsidales
Family: Codiaceae
Genus: *Codium*
Species: *C. fragile*

Remarks: The cylindrical, forked, dark green fronds of *C. fragile* grow to 30 cm long. When the plant is under water, fine hairs can be seen over the surface of the branches. This is a species of temperate regions, found subtidally and in intertidal pools often on rough coasts. Small red algae are often found growing on C. fragile, giving a pink colour to the fronds.

Kingdom: Plantae

Green filamentous algae

Remarks: Filamentous algae are colonies of microscopic plants that link together to form threads or mesh-like filaments. These primitive plants normally grow on the surface of hard objects or other substrates under the water but they can break loose and form floating mats.

8. Seagrass characteristics and fouling levels measured in surveys

The following plates show the various growth characteristics of the seagrass *Zostera capricorni* in regard to leaf length. In the study area, due to environmental factors, *Zostera capricorni* either had short leaf growth (**Plate 8.1**) or was long leaved (**Plate 8.4**). The plates also show the levels of fouling of seagrass beds by filamentous algae and other algal species. In this study, fouling is described as No (Level 0), Low (Level 1) or Heavy (Level 2) (**Plates 8.1- 8.6**).

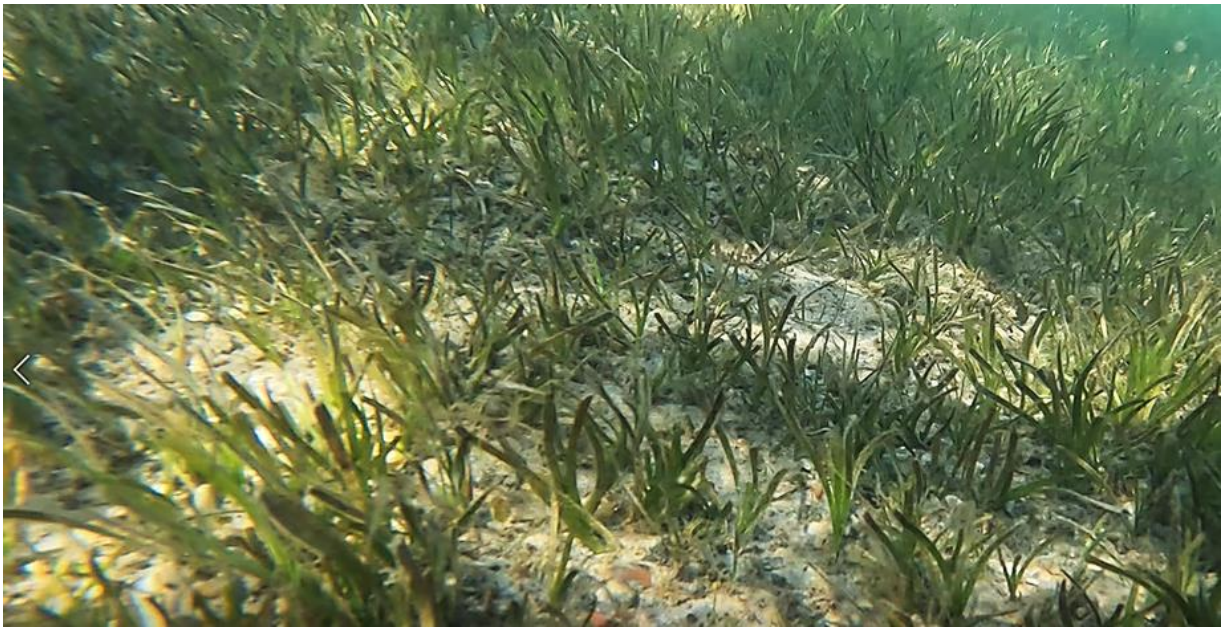

Plate 8.1 Short leaved sea grass with no fouling

Plate 8.2 Short leaved seagrass with low fouling

Plate 8.3 Short leaved seagrass with heavy fouling

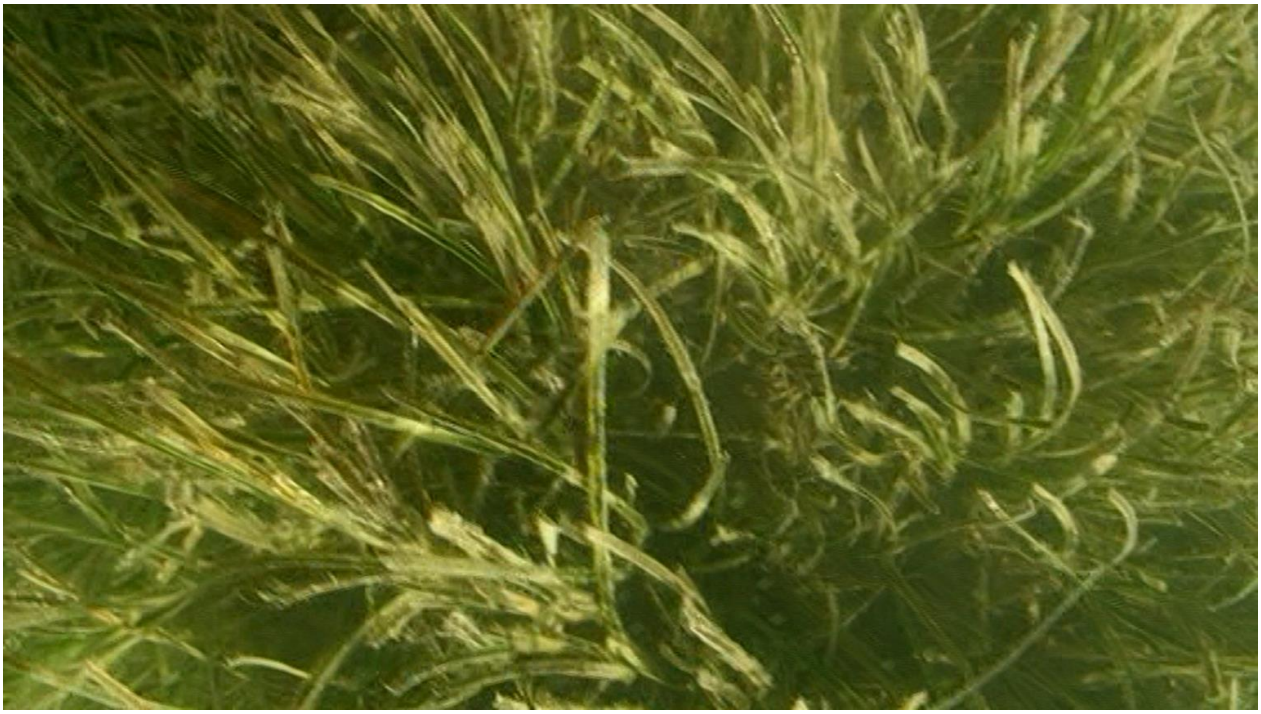

Plate 8.4 Long leaved seagrass with no fouling

Plate 8.5 Long leaved seagrass with low fouling

Plate 8.6 Long leaved seagrass with heavy fouling

Plate 8.7 Algae, *Halophila* and bare ground

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9. Analysis of photographs along permanent transects

Two species of seagrass were identified in the study area, *Zostera capricorni* and *Halophila ovalis* (Plate 7.1). The seagrass *Zostera capricorni* had the greatest coverage and was found along the entire length of the transects. *Halophila ovalis* was found predominantly in the shallower waters on the shoreline or as single plants nestled amongst less dense patches of *Zostera capricorni*. In June 2023, the average total seagrass coverage in the study area ranged from:

- 50.2% at F2 to 96.8% at F4 on the northern shore of Summerland Point and Frying Pan Bay (Table 9.1)
- 74.4% at T2 to 92.3% at T1 along the western shore of Summerland Point (Table 9.2)
- 75.0% at E6 to 99.3% at E13 in Chain Valley Bay (Table 9.3)
- 74.3% at A1 to 97.5% at A6 in Bardens Bay (Table 9.4)
- 90.7% at S1 to 96.3% at S4 in Sugar Bay (Table 9.5) and
- 82.1% at C1 to 95.2% at C4 in Crangan Bay (Table 9.6).

At the time of survey, transects with the highest coverage of *Halophila ovalis* were E6 (5.1%), S2 (3.5%), C1 (2.8%) and A1 (2.7%) (Tables 9.1-9.6).

Three species of alga were recorded in the study area, namely *Cystoseira trinodis* (synonym *Cystophyllum onustum*), *Codium fragile* and green filamentous algae. The transects with the highest total coverage of *Cystoseira* were F2 (28.5% total coverage), A1 (9.1%), A2 (8.6%), A3 (7.1%), E1 (5.1%) and T2 (4.9%). *Codium fragile* was observed at transects A1 (0.4% total coverage) and C1 (0.9% total coverage) only. Transects E10 and S1 had the highest average total coverage of filamentous algae, 6.8% and 4.6% respectively.

Table 9.1 Average percent area cover of substratum by seagrasses and algae - northern shore Summerland Point and Frying Pan Bay

Percent Area	C5	C6	F1	F2	F3	F4	F5	F6	F7
Seagrasses									
Zostera	**93.1**	**94.9**	**95.6**	**50.2**	84.0	96.3	85.6	83.2	77.1
Halophila	0.0	0.3	0.1	0.0	2.4	0.6	0.1	2.8	2.3
Total	**93.1**	**95.1**	**95.6**	**50.2**	**86.5**	**96.8**	**85.7**	**86.0**	**79.4**
Algae									
Cystoseira	1.0	0.7	0.6	28.5	1.9	0.4	3.9	1.5	0.3
Codium	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Filamentous algae	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	**3.4**	**0.7**	**0.6**	**28.5**	**1.9**	**0.4**	**3.9**	**1.5**	**0.3**
Bare ground	**3.5**	**4.1**	**3.7**	**21.4**	**11.7**	**2.8**	**10.5**	**12.6**	**20.3**

Table 9.2 Average percent area cover of substratum by seagrasses and algae - western shore Summerland Point

Percent Area	E7	T1	T2	T3	T4	T5	T6	T7	T8
Seagrasses									
Zostera	**85.9**	**91.2**	**74.1**	**88.2**	90.2	82.1	84.3	83.1	81.2
Halophila	1.4	1.0	0.3	0.6	0.1	2.2	1.7	1.1	2.0
Total	**87.3**	**92.3**	**74.4**	**88.8**	**90.3**	**84.3**	**86.0**	**84.3**	**83.2**
Algae									
Cystoseira	0.2	2.6	4.9	2.1	1.1	0.6	0.1	0.2	0.0
Codium	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Filamentous algae	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	**0.2**	**2.9**	**4.9**	**2.1**	**1.1**	**0.6**	**0.1**	**0.2**	**0.0**
Bare ground	**12.6**	**5.0**	**20.7**	**9.1**	**8.6**	**15.1**	**13.9**	**15.5**	**17.0**

Table 9.3 Average percent area cover of substratum by seagrasses and algae – Chain Valley Bay

Percent Area	E1	E2	E3	E4	L1	E5	E6	E8	E9
Seagrasses									
Zostera	85.0	85.6	96.6	90.2	92.7	96.3	69.9	86.0	95.7
Halophila	0.4	1.6	0.1	1.3	1.0	0.1	5.1	1.5	0.5
Total	**85.4**	**87.2**	**96.7**	**91.5**	**93.6**	**96.4**	**75.0**	**87.5**	**96.2**
Algae									
Cystoseira	5.1	2.4	0.0	2.6	0.8	0.3	0.1	0.1	0.3
Codium	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Filamentous algae	0.5	5.3	0.0	0.1	0.0	0.2	0.0	0.0	0.0
Total	**5.6**	**7.7**	**0.0**	**2.7**	**0.8**	**0.5**	**0.1**	**0.1**	**0.3**
Bare ground	**9.0**	**5.1**	**3.3**	**5.8**	**5.6**	**3.1**	**22.1**	**12.4**	**3.5**

Percent Area	E10	E11	E12	E13	E14	E15	E16
Seagrasses							
Zostera	**88.2**	**96.5**	**94.3**	**99.3**	92.4	88.9	95.1
Halophila	0.8	0.1	0.5	0.0	0.1	0.7	0.1
Total	**89.0**	**96.6**	**94.8**	**99.3**	**92.5**	**89.6**	**95.2**
Algae							
Cystoseira	1.5	0.1	0.0	0.2	0.4	0.2	0.1
Codium	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Filamentous algae	6.8	0.0	0.4	0.0	0.4	0.0	0.0
Total	**8.2**	**0.1**	**0.4**	**0.2**	**0.8**	**0.2**	**0.1**
Bare ground	**2.8**	**3.2**	**4.8**	**0.4**	**6.6**	**10.1**	**4.6**

Table 9.4 Average percent area cover of substratum by seagrasses and algae – Bardens Bay

Percent Area	A1	A2	A3	A4	A5	A6
Seagrasses						
Zostera	**71.6**	**84.5**	**86.0**	**94.6**	79.4	97.2
Halophila	2.7	0.9	0.8	1.8	4.0	0.3
Total	**74.3**	**82.5**	**86.8**	**96.4**	**83.5**	**97.5**
Algae						
Cystoseira	9.1	8.6	7.1	0.1	0.0	0.8
Codium	0.4	0.0	0.0	0.0	0.0	0.0
Filamentous algae	0.0	0.0	0.0	0.0	0.0	0.3
Total	**9.5**	**8.6**	**7.1**	**0.1**	**0.0**	**1.1**
Bare ground	**16.3**	**8.6**	**6.1**	**3.5**	**16.6**	**1.4**

Table 9.5 Average percent area cover of substratum by seagrasses and algae – Sugar Bay

Percent Area	S1	S2	S3	S4	S5	S6
Seagrasses						
Zostera	**90.7**	**90.8**	**92.9**	**95.7**	92.6	93.2
Halophila	0.0	3.5	2.4	0.7	0.4	0.1
Total	**90.7**	**94.3**	**95.3**	**96.3**	**92.9**	**93.4**
Algae						
Cystoseira	2.7	0.3	0.7	0.3	0.6	0.3
Codium	0.0	0.0	0.0	0.0	0.0	0.0
Filamentous algae	4.6	0.0	0.0	0.0	0.4	0.0
Total	**7.3**	**0.3**	**0.7**	**0.3**	**1.0**	**0.3**
Bare ground	**2.1**	**5.4**	**4.0**	**3.5**	**6.0**	**6.3**

Table 9.6 Average percent area cover of substratum by seagrasses and algae – Crangan Bay

Percent Area	C1	C2	C3	C4
Seagrasses				
Zostera	**79.3**	**91.6**	**94.9**	**95.2**
Halophila	2.8	0.6	0.3	0.0
Total	**82.1**	**92.2**	**95.1**	**95.2**
Algae				
Cystoseira	6.8	0.8	0.5	0.7
Codium	0.9	0.0	0.0	0.0
Filamentous algae	0.0	0.6	1.5	2.4
Total	**7.6**	**1.4**	**2.1**	**3.2**
Bare ground	**10.4**	**6.5**	**2.9**	**1.6**

Figures 9.1 to **9.6** show annual changes in the percentage cover of seagrasses off Summerland Point and in Chain Valley Bay, Bardens Bay, Sugar Bay and Crangan Bay. Numerical values are presented in Appendix 2. Seagrass cover continues to be high and consistent, with only six transects showing a slight decline in seagrass coverage in the June 2023 survey compared to 2022 findings. Changes in coverage were due to:

- A high presence of the alga *Cystoseira trinodis*. At transect F2, for instance, *C. trinodis* covers approximately 28.5 percent of the substratum. The plants have grown to an impressive size over the years.
- The presence of *Halophila ovalis.* Changes in survey methods and camera are enabling photography in very shallow water. *Halophila ovalis* prefers an environment without competition and is usually observed growing in the sand along the shoreline above the *Zostera* beds. Photographing this band of sand to capture the presence of *H. ovalis* has affected the statistics by reducing the presence of *Zostera* and increasing the presence of bare ground. The changes in survey methods are also making it possible to distinguish *H. ovalis* in deeper water from shadows. These plants, which are nestled amongst the

Zostera, are very difficult to observe, especially when the delicate leaves are covered by fine sediment.

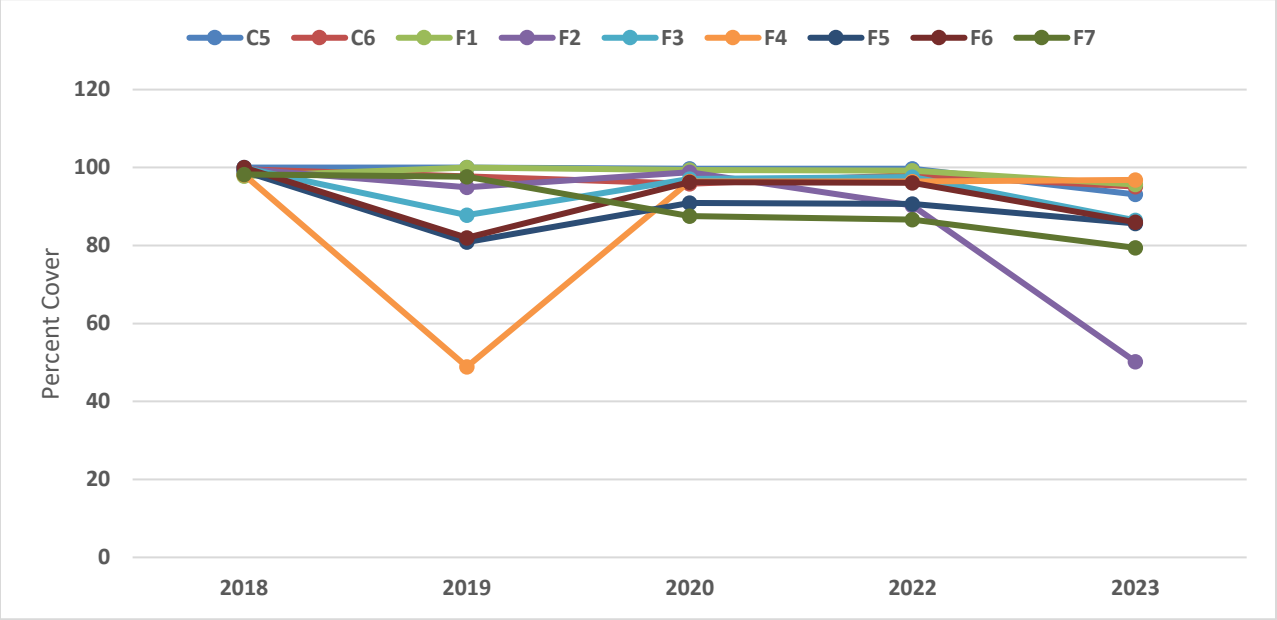

Figure 9.1 Changes in percent cover of seagrasses along Frying Pan Bay and northern shore of Summerland Point (2018-2023)

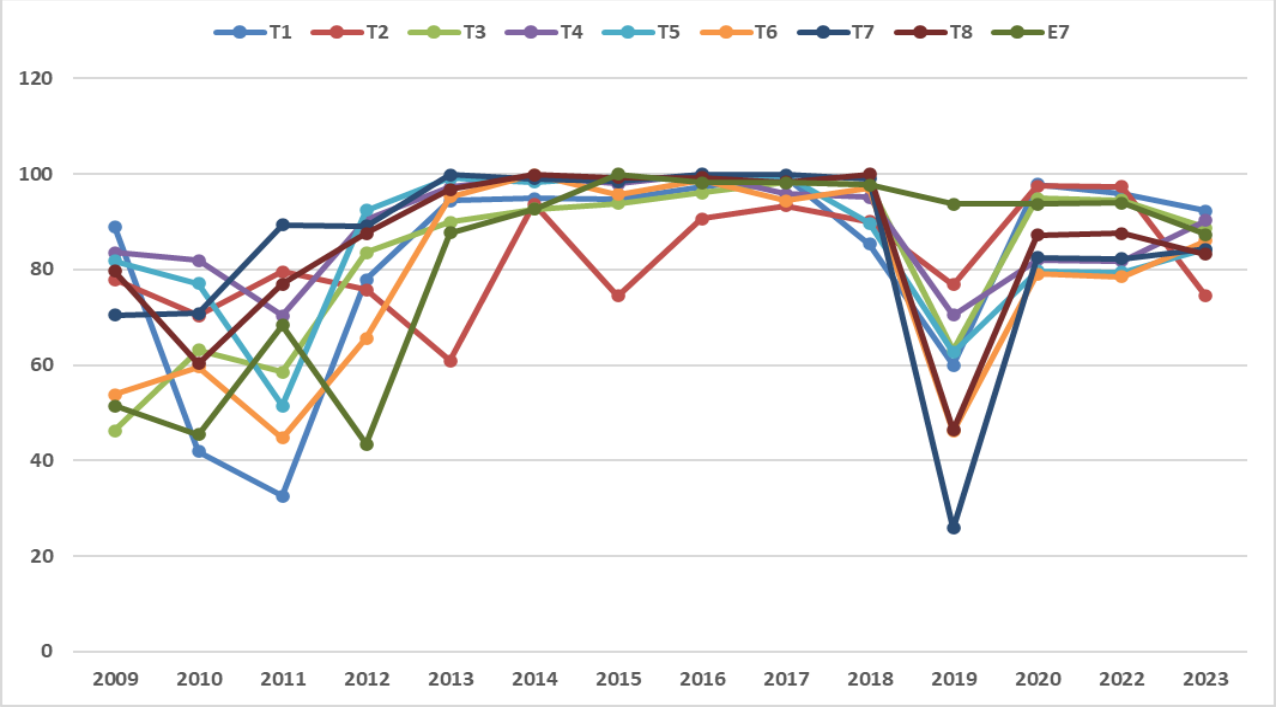

Figure 9.2 Changes in percent cover of seagrasses along western shore of Summerland Point (2009-2023)

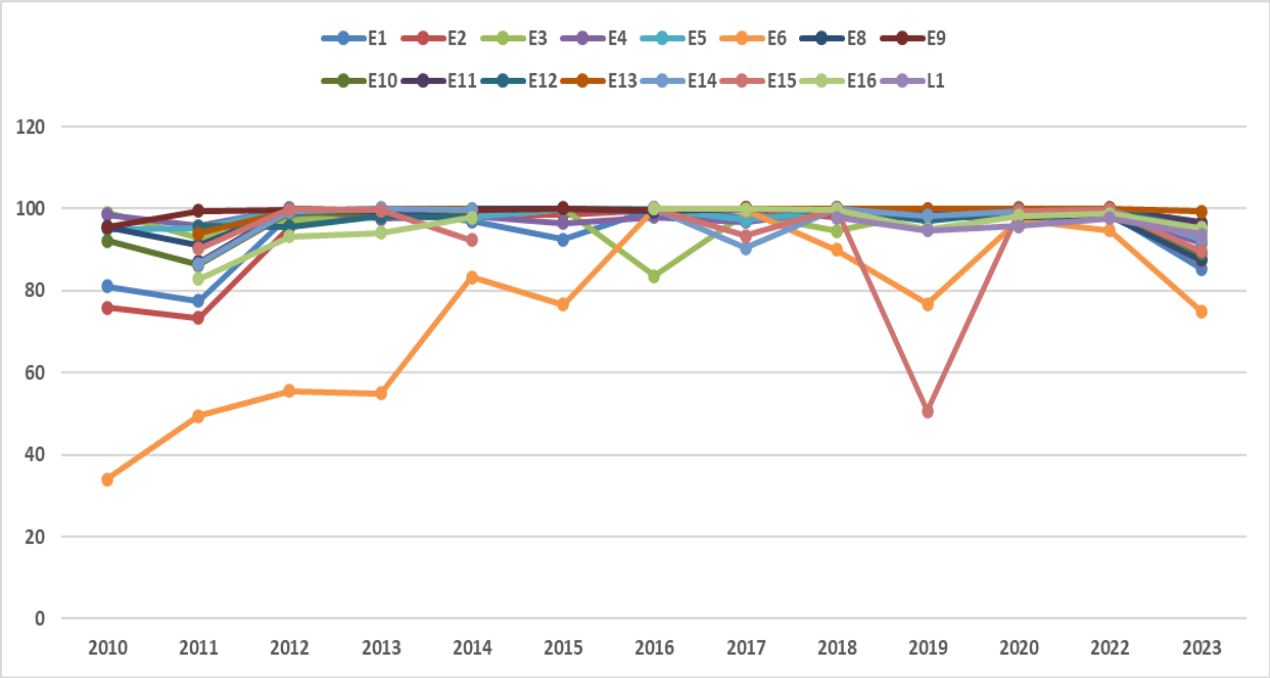

Figure 9.3 Changes in percent cover of seagrasses in Chain Valley Bay (2008-2023)

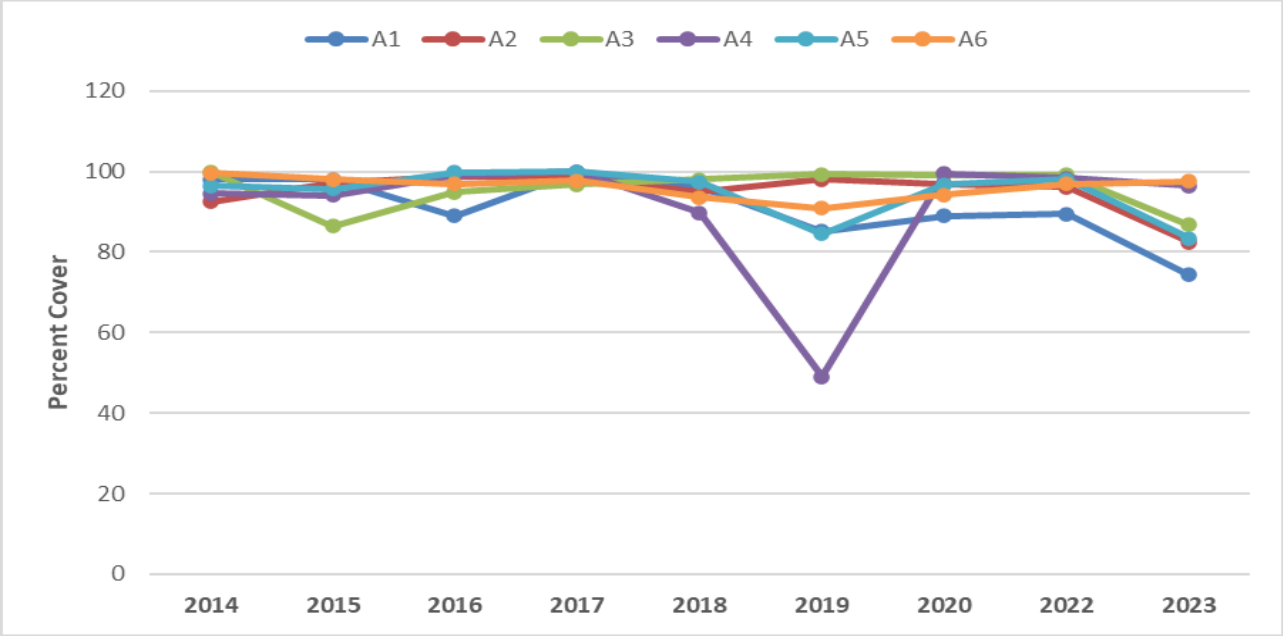

Figure 9.4 Changes in percent cover of seagrasses in Bardens Bay (2014-2023)

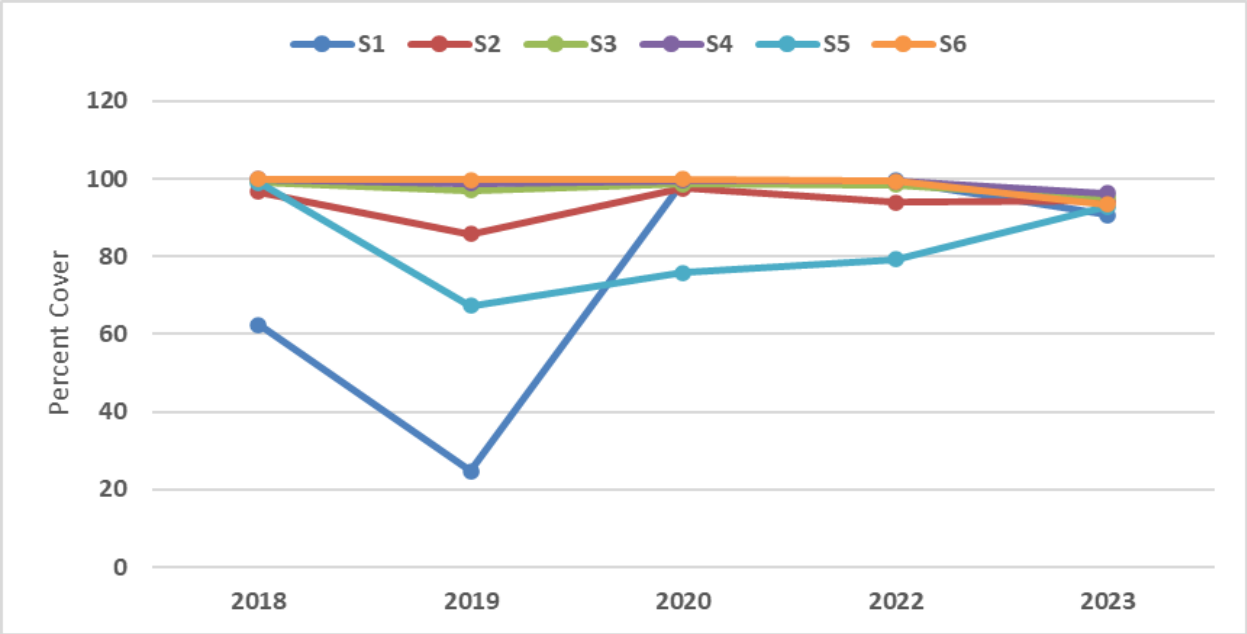

Figure 9.5 Changes in percent cover of seagrasses in Sugar Bay (2018-2023)

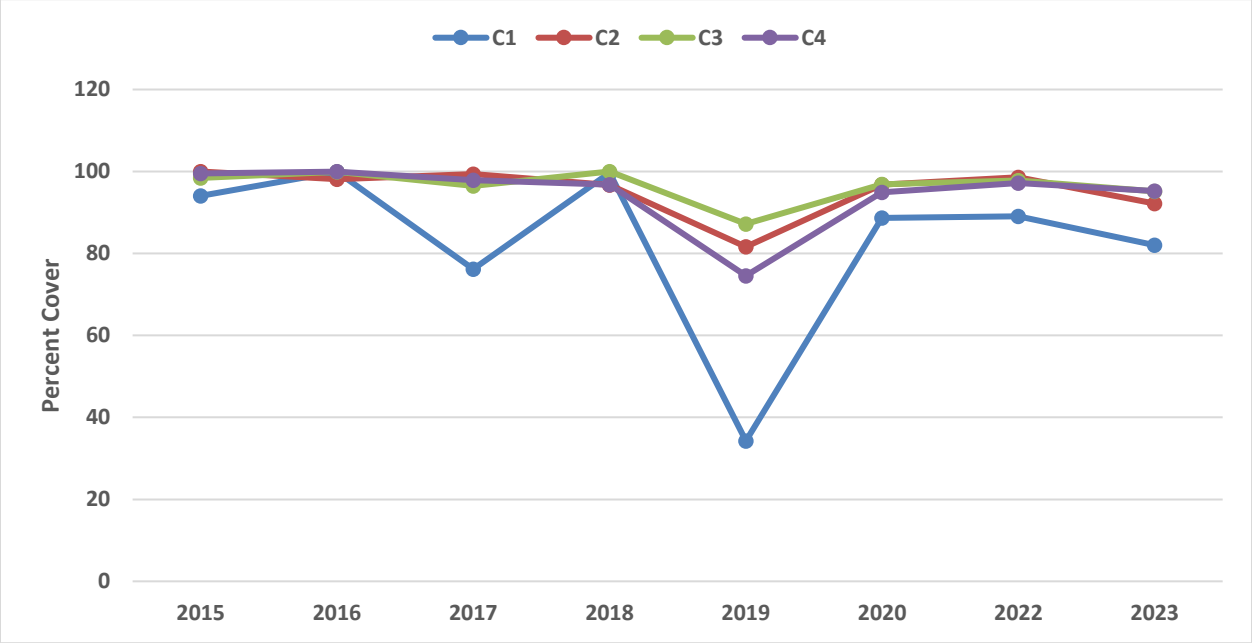

Figure 9.6 Changes in percent cover of seagrasses in Crangan Bay (2015-2023)

In June 2023, the seagrasses were in good condition, with most seagrasses lightly fouled with epiphytic algae or not fouled. Transects with high levels of fouling were E6, E10, R16, L1 and C4 (**Appendix 1**).

Table 9.7 shows the average composition, percent cover and condition of seagrass beds in the four regions of Lake Macquarie under investigation for the years 2011 to 2023. It shows that the growth form of *Zostera capricorni* in the Summerland Point, Frying Pan Bay and Crangan Bay region is predominantly short leaved. The growth form of *Z. capricorni* in Chain Valley Bay and Bardens Bay, however, is long leaved.

Table 9.7 also shows in greater detail the increase in percent cover of seagrasses, with bare ground decreasing from 38.13 percent in 2011 to 9.59 percent in 2023 in the Summerland Point, Frying Pan Bay and Sugar Bay region. In the Chain Valley Bay region, bare ground decreased from 13.32 percent in 2011 to 6.41 percent in 2023. In the Crangan Bay region, bare ground decreased from 26.98 percent in 2011 to 5.35 percent in 2023. Seagrass cover in Bardens Bay has mostly been around 90 percent since 2014.

Table 9.7 Average composition, % cover and condition of seagrass beds in the four regions of Lake Macquarie under investigation for the years 2011 to 2023.

Year	Total SG	% long	% short	% long 0	% long 1	% short 0	% short 1	algae	bare gr.
Summerland Point, Frying Pan Bay and Sugar Bay									
2011	61.74	9.88	51.86	9.98	0.00	51.86	0.00	0.27	38.13
2012	82.18	38.03	44.15	38.03	0.00	44.15	0.00	0.00	17.85
2013	90.92	25.19	65.88	25.03	0.32	64.92	0.80	0.82	8.26
2014	96.74	19.73	80.27	19.93	0.00	80.27	0.00	0.00	3.26
2015	95.06	17.31	69.33	17.31	0.00	77.75	0.00	0.00	4.93
2016	98.15	20.82	77.64	28.32	0.00	77.66	0.00	0.00	1.30
2017	97.92	17.05	80.63	14.61	2.50	65.14	15.63	0.24	1.35
2018	96.22	28.00	66.03	25.44	5.36	67.00	0.91	1.31	2.28
2019	77.37	32.99	40.16	36.46	0.00	44.00	0.00	2.11	20.51
2020	93.29	35.89	57.40	33.99	1.67	56.91	0.49	0.03	6.64
2021	97.76	48.55	48.14	17.35	26.98	11.33	33.43	0.52	2.00
2022	93.53	28.19	65.33	27.36	0.83	65.08	0.26	0.03	6.36
2023	87.84	26.85	59.54	10.01	16.58	24.58	33.83	2.6	9.59
Chain Valley Bay									
2011	85.44	41.75	43.68	40.28	1.47	43.68	0.00	0.99	13.32
2012	95.26	89.97	5.28	89.97	0.00	5.28	0.00	2.89	1.92
2013	95.63	62.25	35.84	55.83	1.06	35.84	0.00	0.25	4.00
2014	96.57	34.15	65.85	34.14	0.64	65.85	0.00	0.69	2.74
2015	94.70	70.26	18.80	58.28	11.97	24.45	0.00	1.02	5.06
2016	98.65	74.52	27.13	71.30	0.00	27.13	0.00	1.20	0.15
2017	97.63	52.60	42.79	36.35	18.19	49.82	0.11	0.60	1.62
2018	98.46	72.25	25.48	66.32	5.88	23.48	1.79	0.83	0.71
2019	93.15	84.48	8.64	84.48	0.00	15.66	0.00	0.39	6.72
2020	98.82	94.53	4.29	91.70	2.84	4.29	0.00	0.21	0.92
2021	99.65	95.35	4.30	2.84	74.63	0.21	2.51	0.00	0.26
2022	99.00	95.27	4.11	92.18	1.67	4.11	0.00	0.31	0.58
2023	91.67	59.42	31.51	3.49	52.08	4.93	25.43	1.73	6.41
Crangan Bay									
2011	72.52	28.47	44.05	28.47	0.00	43.31	0.74	0.87	26.98
2012	92.38	0.00	92.38	0.00	0.00	92.38	0.00	0.01	7.99
2013	98.82	13.79	85.52	10.84	2.96	85.52	0.00	0.02	1.02
2014	97.94	23.23	76.77	23.23	0.00	76.77	0.00	0.06	2.02
2015	98.00	23.53	74.47	23.53	0.00	74.47	0.00	0.00	2.01
2016	99.47	15.90	83.30	6.99	9.18	55.37	27.93	0.13	0.49
2017	92.48	16.73	75.75	15.99	3.20	74.71	1.05	0.02	7.57
2018	98.28	46.25	52.03	5.48	89.13	49.09	2.94	0.01	1.74
2019	69.39	39.56	29.95	39.56	0.00	29.95	0.00	0.00	30.40
2020	94.30	25.40	68.90	25.40	0.70	59.12	7.06	0.57	4.01
2021	97.87	67.28	30.59	16.54	50.74	20.66	9.93	0.00	1.32
2022	95.65	19.50	74.35	15.46	5.85	61.07	13.28	0.09	2.50
2023	91.16	18.82	71.42	3.25	5.75	28.99	48.70	3.57	5.35
Bardens Bay									
2014	96.87	54.20	45.80	54.20	0.00	45.80	0.00	1.20	2.03
2015	94.84	68.18	26.67	68.18	0.00	26.67	0.00	0.00	2.92
2016	96.40	63.48	33.01	63.98	0.00	33.01	0.00	0.00	3.61
2017	98.78	76.02	22.75	51.51	24.51	20.59	3.78	0.03	1.23
2018	94.96	55.58	39.39	38.78	16.80	37.67	2.45	2.19	2.68
2019	84.48	73.08	6.40	73.03	11.40	11.40	0.00	0.00	15.52

2020	95.89	81.08	16.04	63.26	1.69	14.60	0.22	0.00	4.11
2021	96.63	96.63	0.00	12.41	78.48	0.00	0.00	3.79	3.24
2022	96.31	81.41	16.07	79.72	1.69	14.90	0.00	0.01	3.57
2023	86.62	34.51	49.84	2.59	32.21	2.32	47.52	4.39	8.80

Plate 9.1 shows sand deposited on seagrasses along Summerland Point after strong onshore winds in June 2011. This event demonstrated how climatic conditions can affect seagrass coverage. It also shows how the movement of sand from deeper waters due to strong winds can increase water depth in some areas whilst decreasing water depth closer to shore as sediment is deposited. Lake Macquarie experienced strong onshore winds prior to the June 2022 survey. Fine sediment was also observed covering seagrasses during the June 2023 survey.

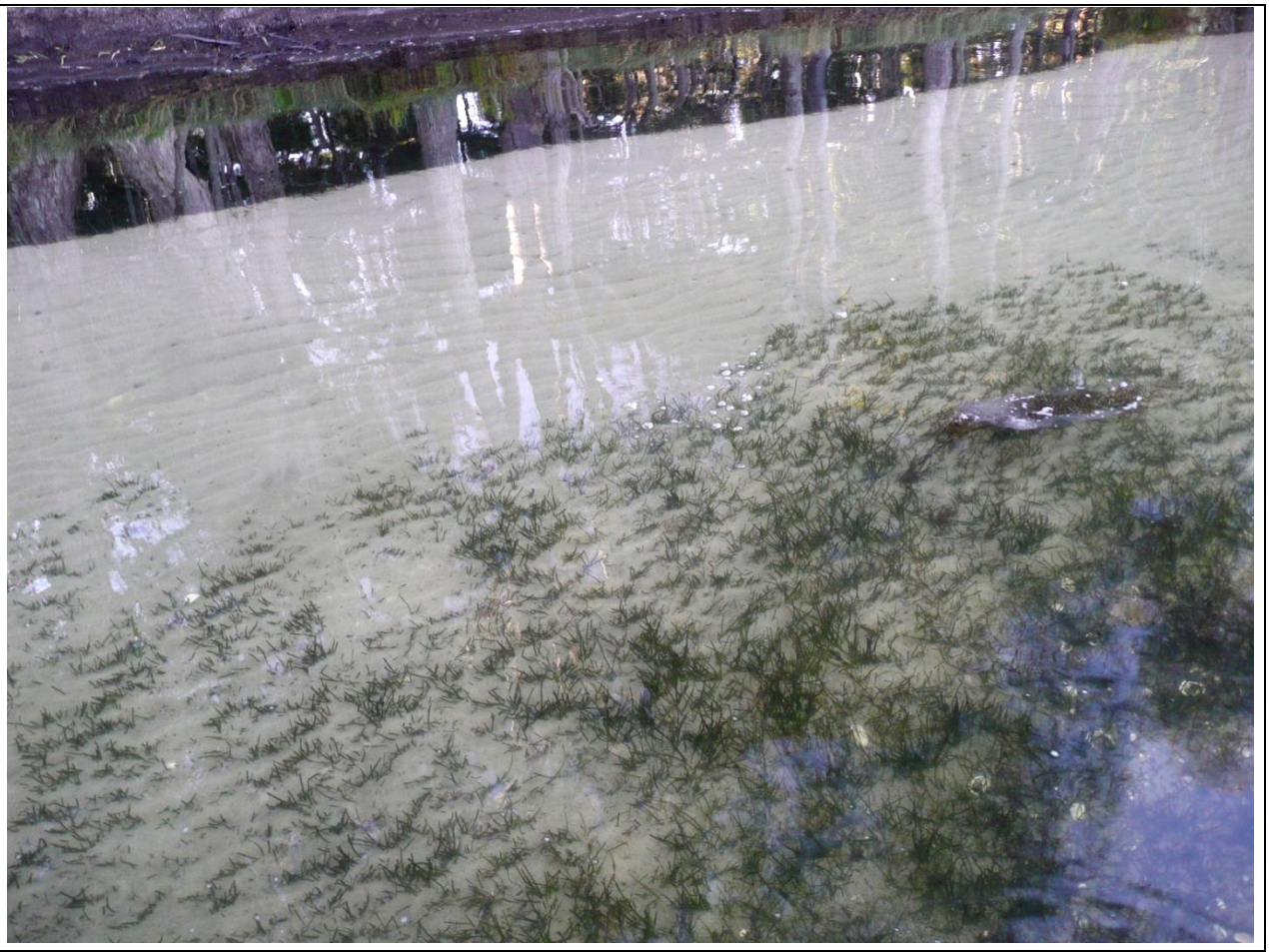

Plate 9.1 *Zostera capricorni* covered by sand along Summerland Point after strong southwesterly winds in 2011.

10. Extent of Coal Mining

Figure 10.1 shows the extent of mining up to March 2023. Mining of the Fassifern seam is currently underway in the Brightwaters and Summerland Point regions. Mining ceased in the Chain Valley Bay region on 24 December 2017.

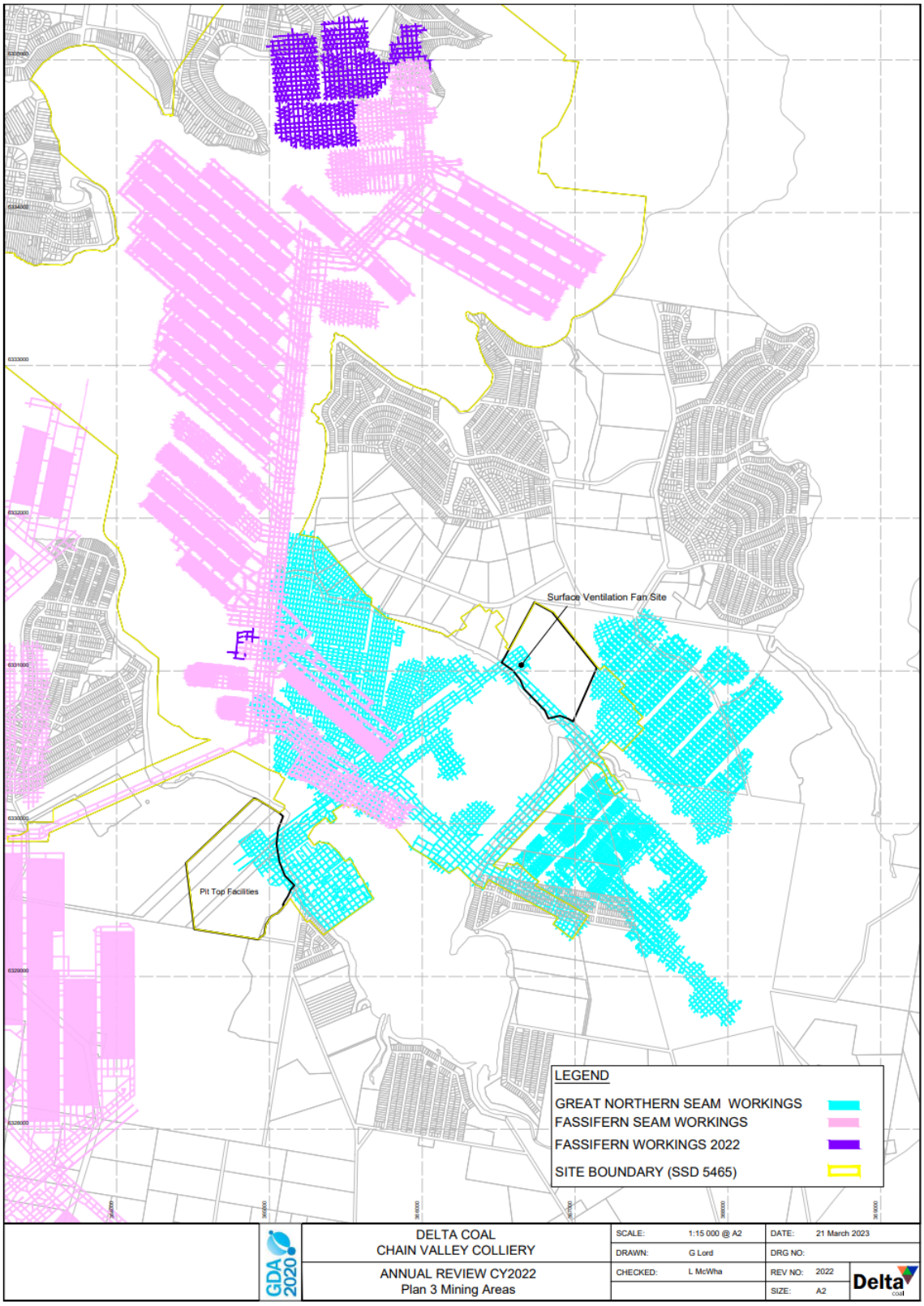

Figure 10.1 Extent of Fassifern Seam Workings – Annual Review CY2022

11. Seagrass Management Plan

The mine, in conjunction with the relevant stakeholders, has developed a Seagrass Management Plan. While the colliery is not mining beneath the seagrass beds, the purpose of the plan is to monitor any changes and identify if subsidence is the cause.

Elements of the plan require:

- That the July 2008 survey is to act as a baseline of seagrass distribution, density and condition. Since this time new seagrass transects have been added to the sampling schedule (now 50 transects in 2018-2022).
- Annual re-surveys of the permanent transect lines will be carried out.
- If, during the annual re-surveys, either:
    - Subsidence along the seagrass permanent transects greater than 150mm is detected, or
    - There are reductions in seagrass cover of 20% or more (compared to 2008 values),

then Mine Management will notify the relevant stakeholders of the event and convene a meeting to discuss the implications.

12. Conclusion

In June 2023, fifty seagrass monitoring transects located in the Summerland Point, Chain Valley Bay, Bardens Bay, Sugar Bay and Crangan Bay areas were photographed as part of a study to monitor the effects of underground coal mining on seagrass communities.

Two species of seagrass were identified in the study area, *Zostera capricorni* and *Halophila ovalis. Zostera capricorni* had the greatest coverage and was often found along the entire length of the transects. The growth form of *Zostera capricorni* was predominantly short leaved in the Summerland Point, Frying Pan Bay, Sugar Bay and Crangan Bay regions, and long leaved in Chain Valley Bay and Bardens Bay. *Halophila ovalis* was found predominantly along the water's edge, and was observed at many sites including E6, S2, C1 and A1.

At the time of the survey, total seagrass cover ranged from 50.2% to 96.8% on the northern shore of Summerland Point and Frying Pan Bay; 74.4% to 92.3% along the western shore of Summerland Point; 74.4% to 92.3% on the western shore of Summerland Point; 75.0% to 99.3% in Chain Valley Bay; 74.3% to 97.5% in Bardens Bay; 90.7% to 96.3% in Sugar Bay; and 82.1% to 95.2% in Crangan Bay.

The health and condition of the seagrasses were good, with most seagrasses free or only lightly

fouled with epiphytic algae. Transects that had seagrasses encrusted with high levels of filamentous algae and sediment were E6, E10, E16, L1 and C4.

Seagrass cover continues to be high and consistent, with only six transects showing a slight decline in seagrass coverage in the June 2023 survey. Changes in coverage were mainly due to a high presence of the alga *Cystoseira trinodis* and changes in survey methods which are enabling the photography of seagrasses up to the water edge. *Halophila ovalis* is often found growing in sand along shorelines in the very shallow waters. Photographing this band of sand to capture the presence of *Halophila ovalis* has affected the statistics by reducing the presence of *Zostera* and increasing the presence of bare ground.

Since 2011, bare ground has decreased from 38.13 percent to 9.59 percent in 2023 in the Summerland Point, Frying Pan Bay and Sugar Bay region. In the Chain Valley Bay region, bare ground decreased from 13.32 percent in 2011 to 6.41 percent in 2023. In the Crangan Bay region, bare ground decreased from 26.98 percent in 2011 to 5.35 percent in 2023. Seagrass cover in Bardens Bay has mostly been around 90 percent since 2011.

The results from the June 2023 seagrass monitoring programme show compliance to the Schedule 4 Environmental Conditions - underground mining of SSD5465 - Modification 4 in the Performance Measures table with respect to the Subsidence Impact Performance Measure for Natural Environment Biodiversity - Seagrass which display nil to minor environmental consequences due to underground mining.

The below summary of findings outline the historical basis for this compliance statement and the compliance is detailed in the table below.

Condition from SSD5465 - Mod 4	Compliance Status and Comments
Schedule 4 Environmental Conditions - underground mining Performance Measures - Natural Environment Biodiversity - Benthic Communities. Subsidence Impact Performance Measure - Minor environmental consequences, including minor changes composition and/or distribution.	Compliant - See section 16 - Conclusions

Measurements undertaken by generally accepted methods.	Compliant - See section 4 and 5
Measurements Methods fully described.	Compliant - See section 4 and 5

13. References

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Appendix 1 Analysis of photograpghs for each transect (June 2023)

Northern Shore Summerland Point, Frying Pan Bay

Transect C5 Sampled 11 June 2023

		Seagrasses			Algae					
Long=1 Short=2	Fouling 0,1,2	*Zostera* % cover	*Halophila* % cover	Total Seagrasses	*Codium* % cover	*Cystophyllum* % cover	% algae Filamentous	Total Algae	% Bare Ground	Total Cover
2	0	70	0	70	0	0	0	0	30	70
2	0	25	0	25	0	0	0	0	75	25
2	0	75	0	75	0	10	0	10	15	85
2	0	85	0	85	0	0	0	0	15	85
2	0	95	0	95	0	0	0	0	5	95
2	0	80	0	80	0	15	0	15	5	95
2	0	95	0	95	0	0	0	0	5	95
2	0	80	0	80	0	0	20	20	0	100
2	0	70	0	70	0	0	30	30	0	100
2	0	80	0	80	0	0	20	20	0	100
2	0	90	0	90	0	0	10	10	0	100
2	0	95	0	95	0	0	0	0	5	95
2	0	95	0	95	0	5	0	5	0	100
2	0	70	0	70	0	0	30	30	0	100
2	0	85	0	85	0	0	15	15	0	100
2	0	90	0	90	0	0	5	5	5	95
2	0	95	0	95	0	0	0	0	5	95
2	0	85	0	85	0	5	10	15	0	100
2	0	95	0	95	0	0	5	5	0	100
2	0	100	0	100	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	100
2	0	95	0	95	0	5	0	5	0	100
2	0	98	0	98	0	2	0	2	0	100
2	0	90	0	90	0	5	0	5	5	95
2	0	100	0	100	0	0	0	0	0	100
2	0	90	0	90	0	0	0	0	10	90
2	0	90	0	90	0	0	0	0	10	90
2	0	100	0	100	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	100
2	0	95	0	95	0	0	5	5	0	100
2	0	95	0	95	0	0	5	5	0	100
2	0	90	0	90	0	0	10	10	0	100
2	0	98	0	98	0	0	0	0	2	98
2	0	90	0	90	0	5	0	5	5	95
2	0	90	0	90	0	5	0	5	5	95
2	0	95	0	95	0	5	0	5	0	100
2	0	100	0	100	0	0	0	0	0	100
2	0	95	0	95	0	0	0	0	5	95
2	0	90	0	90	0	0	0	0	10	90
2	0	95	0	95	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	5	95
2	0	95	0	95	0	5	0	5	0	100
2	0	98	0	98	0	0	0	0	2	98
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	100
2	1	98	0	98	0	0	0	0	2	98
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	98	2	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	95	0	95	0	0	0	0	5	95
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
Average		**93.1**	**0.0**	**93.1**	**0.0**	**1.0**	**2.4**	**3.4**	**3.5**	**96.5**

Transect C6										Sampled 11 June 2023
		Seagrasses			Algae					
Long=1 Short=2	Fouling 0,1,2	*Zostera* % cover	*Halophila* % cover	Total Seagrasses	*Codium* % cover	*Cystophyllum* % cover	% algae Filamentous	Total Algae	% Bare Ground	Total Cover
2	0	60	0	60	0	0	0	0	40	60
2	0	60	5	65	0	0	0	0	35	65
2	0	85	0	85	0	5	0	5	10	90
2	0	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	0	95	0	95	0	0	0	0	5	95
2	0	100	0	100	0	0	0	0	0	100
2	0	95	0	95	0	0	0	0	5	95
2	0	98	0	98	0	0	0	0	2	98
2	0	100	0	100	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	100
2	0	88	2	90	0	0	0	0	10	90
1	0	95	0	95	0	0	0	0	5	95
2	0	100	0	100	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	90	0	90	0	10	0	10	0	100
1	1	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	95	0	95	0	5	0	5	0	100
1	0	90	0	90	0	5	0	5	5	95
1	0	95	0	95	0	0	0	0	5	95
1	0	90	0	90	0	10	0	10	0	100
1	0	100	0	100	0	0	0	0	0	100
1	1	95	0	95	0	0	0	0	5	95
1	0	70	0	70	0	0	0	0	30	70
1	0	95	0	95	0	0	0	0	5	95
1	1	90	0	90	0	0	0	0	10	90
2	1	90	0	90	0	0	0	0	10	90
2	1	95	0	95	0	0	0	0	5	95
2	1	90	0	90	0	0	0	0	10	90
2	0	100	0	100	0	0	0	0	0	100
2	0	85	0	85	0	0	0	0	15	85
2	0	70	10	80	0	0	0	0	20	80
2	0	80	0	80	0	0	0	0	20	80
2	1	100	0	100	0	0	0	0	0	100
2	1	98	0	98	0	0	0	0	2	98
2	1	98	0	98	0	0	0	0	2	98
2	1	90	0	90	0	0	0	0	10	90
1	1	90	0	90	0	0	0	0	10	90
1	1	80	0	80	0	15	0	15	5	95
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
Average		**94.9**	**0.3**	**95.1**	**0.0**	**0.7**	**0.0**	**0.7**	**4.1**	**95.9**

Transect F1 Sampled 11 June 2023

		Seagrasses			Algae					
Long=1 Short=2	Fouling 0,1,2	*Zostera* % cover	*Halophila* % cover	Total seagrasses	*Codium* % cover	*Cystophyllum* % cover	% algae Filamentous	Total Algae	% Bare Ground	Total Cover
1	1	60	0	60	0	0	0	0	40	60
1	1	60	0	60	0	0	0	0	40	60
1	1	80	0	80	0	0	0	0	20	80
2	1	95	0	95	0	0	0	0	5	95
2	1	80	0	80	0	0	0	0	20	80
2	1	60	0	60	0	0	0	0	40	60
2	1	70	0	70	0	0	0	0	30	70
2	1	90	0	90	0	5	0	5	5	95
2	0	80	0	80	0	10	0	10	10	90
2	0	95	0	95	0	0	0	0	5	95
2	0	100	0	100	0	0	0	0	0	100
2	0	95	0	95	0	5	0	5	0	100
2	0	100	0	100	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	100
2	1	95	0	95	0	5	0	5	0	100
2	1	98	0	98	0	2	0	2	0	100
2	1	98	0	98	0	2	0	2	0	100
2	1	98	0	98	0	0	0	0	2	98
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	98	0	98	0	0	0	0	2	98
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
1	1	98	0	98	0	0	0	0	2	98
1	1	98	0	98	0	0	0	0	2	98
1	1	100	0	100	0	0	0	0	0	100
1	1	95	0	95	0	5	0	5	0	100
2	1	95	0	95	0	0	0	0	5	95
2	1	90	0	90	0	0	0	0	10	90
1	0	100	0	100	0	0	0	0	0	100
2	0	98	0	98	0	0	0	0	2	98
2	0	98	0	98	0	0	0	0	2	98
2	0	95	0	95	0	0	0	0	5	95
2	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
2	0	95	0	95	0	5	0	5	0	100
2	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
2	0	95	0	95	0	5	0	5	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	95	0	95	0	0	0	0	5	95
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	95	5	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	100
Average		**95.6**	**0.1**	**95.6**	**0.0**	**0.6**	**0.0**	**0.6**	**3.7**	**96.3**

Transect F2 Sampled 11 June 2023

		Seagrasses			Algae					
Long=1 Short=2	Fouling 0,1,2	*Zostera* % cover	*Halophila* % cover	Total seagrasses	*Codium* % cover	*Cystophyllum* % cover	% algae Filamentous	Total Algae	% Bare Ground	Total Cover
2	0	60	0	60	0	15	0	15	25	75
2	0	60	0	60	0	5	0	5	35	65
2	0	80	0	80	0	0	0	0	20	80
2	0	85	0	85	0	0	0	0	15	85
2	0	90	0	90	0	0	0	0	10	90
2	0	90	0	90	0	5	0	5	5	95
2	0	90	0	90	0	5	0	5	5	95
2	0	100	0	100	0	0	0	0	0	100
2	0	95	0	95	0	0	0	0	5	95
2	0	100	0	100	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	100
2	0	95	0	95	0	5	0	5	0	100
2	0	50	0	50	0	15	0	15	35	65
2	0	40	0	40	0	30	0	30	30	70
2	0	80	0	80	0	5	0	5	15	85
2	0	95	0	95	0	0	0	0	5	95
2	0	90	0	90	0	5	0	5	5	95
2	0	85	0	85	0	15	0	15	0	100
2	0	100	0	100	0	0	0	0	0	100
2	0	95	0	95	0	5	0	5	0	100
2	0	90	0	90	0	5	0	5	5	95
2	0	95	0	95	0	5	0	5	0	100
2	0	90	0	90	0	5	0	5	5	95
2	0	55	0	55	0	20	0	20	25	75
2	0	75	0	75	0	20	0	20	5	95
2	0	65	0	65	0	25	0	25	10	90
2	0	90	0	90	0	0	0	0	10	90
2	0	70	0	70	0	15	0	15	15	85
2	0	75	0	75	0	10	0	10	15	85
2	0	70	0	70	0	15	0	15	15	85
2	0	75	0	75	0	5	0	5	20	80
2	0	65	0	65	0	25	0	25	10	90
2	0	65	0	65	0	20	0	20	15	85
2	0	80	0	80	0	15	0	15	5	95
2	0	60	0	60	0	15	0	15	25	75
2	0	75	0	75	0	10	0	10	15	85
2	0	45	0	45	0	35	0	35	20	80
2	0	30	0	30	0	50	0	50	20	80
0	0	0	0	0	0	70	0	70	30	70
2	1	25	0	25	0	75	0	75	0	100
0	0	0	0	0	0	35	0	35	65	35
0	0	0	0	0	0	50	0	50	50	50
0	0	0	0	0	0	50	0	50	50	50
0	0	0	0	0	0	40	0	40	60	40
0	0	0	0	0	0	30	0	30	70	30
0	0	0	0	0	0	60	0	60	40	60
0	0	0	0	0	0	40	0	40	60	40
0	0	0	0	0	0	60	0	60	40	60
0	0	0	0	0	0	75	0	75	25	75
0	0	0	0	0	0	80	0	80	20	80
0	0	0	0	0	0	75	0	75	25	75
0	0	0	0	0	0	70	0	70	30	70
0	0	0	0	0	0	65	0	65	35	65
0	0	0	0	0	0	75	0	75	25	75
0	0	0	0	0	0	75	0	75	25	75
0	0	0	0	0	0	80	0	80	20	80
0	0	0	0	0	0	65	0	65	35	65
0	0	0	0	0	0	75	0	75	25	75
0	0	0	0	0	0	75	0	75	25	75
0	0	0	0	0	0	65	0	65	35	65
2	0	10	0	10	0	30	0	30	60	40
2	0	20	0	20	0	15	0	15	65	35
2	0	75	0	75	0	10	0	10	25	85
2	0	85	0	85	0	10	0	10	5	95
Average		**50.2**	**0.0**	**50.2**	**0.0**	**28.5**	**0.0**	**28.5**	**21.4**	**78.8**

Transect F3 Sampled 11 June 2023

		Seagrasses			Algae					
Long=1 Short=2	Fouling 0,1,2	*Zostera* % cover	*Halophila* % cover	Total Seagrasses	*Codium* % cover	*Cystophyllum* % cover	% algae Filamentous	Total Algae	% Bare Ground	Total Cover
2	0	65	0	65	0	0	0	0	35	65
2	0	65	0	65	0	0	0	0	35	65
2	0	80	0	80	0	0	0	0	20	80
2	0	80	0	80	0	0	0	0	20	80
2	0	85	0	85	0	0	0	0	15	85
2	0	80	0	80	0	0	0	0	20	80
2	0	85	0	85	0	0	0	0	15	85
2	0	75	0	75	0	10	0	10	15	85
2	0	80	0	80	0	0	0	0	20	80
2	0	80	0	80	0	0	0	0	20	80
2	0	55	0	55	0	15	0	15	30	70
2	0	75	0	75	0	0	0	0	25	75
2	0	50	0	50	0	30	0	30	20	80
2	0	80	0	80	0	10	0	10	10	90
2	0	80	0	80	0	2	0	2	18	82
2	0	75	0	75	0	5	0	5	20	80
2	1	80	0	80	0	0	0	0	20	80
2	1	80	0	80	0	0	0	0	20	80
2	1	75	5	80	0	0	0	0	20	80
2	1	80	0	80	0	5	0	5	15	85
2	1	75	0	75	0	5	0	5	20	80
2	1	90	0	90	0	0	0	0	10	90
2	1	100	0	100	0	0	0	0	0	100
2	1	90	0	90	0	5	0	5	5	95
2	1	90	0	90	0	5	0	5	5	95
2	1	95	0	95	0	0	0	0	5	95
2	1	85	0	85	0	5	0	5	10	90
2	1	75	0	75	0	0	0	0	25	75
2	1	75	0	75	0	5	0	5	20	80
2	1	90	0	90	0	0	0	0	10	90
2	1	70	5	75	0	0	0	0	25	75
2	1	70	5	75	0	0	0	0	25	75
2	1	75	0	75	0	5	0	5	20	80
2	1	70	5	75	0	5	0	5	20	80
2	0	70	5	75	0	5	0	5	20	80
2	0	100	0	100	0	0	0	0	0	100
2	0	90	5	95	0	0	0	0	5	95
2	0	90	5	95	0	0	0	0	5	95
2	0	85	5	90	0	0	0	0	10	90
2	0	80	10	90	0	0	0	0	10	90
2	0	90	5	95	0	0	0	0	5	95
2	0	85	10	95	0	5	0	5	0	100
2	0	90	5	95	0	0	0	0	5	95
2	0	80	10	90	0	0	0	0	10	90
2	0	80	10	90	0	0	0	0	10	90
2	0	85	0	85	0	5	0	5	10	90
2	0	70	10	80	0	0	0	0	20	80
2	0	85	5	90	0	0	0	0	10	90
2	0	85	10	95	0	0	0	0	5	95
2	0	95	5	100	0	0	0	0	0	100
2	0	90	5	95	0	0	0	0	5	95
2	0	85	10	95	0	0	0	0	5	95
2	0	85	5	90	0	0	0	0	10	90
2	0	90	5	95	0	0	0	0	5	95
2	0	100	0	100	0	0	0	0	0	100
2	0	95	0	95	0	0	0	0	5	95
2	0	100	0	100	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	100
2	0	85	0	85	0	0	0	0	15	85
2	0	90	10	100	0	0	0	0	0	100
2	0	95	5	100	0	0	0	0	0	100
2	0	90	5	95	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	5	95
2	0	100	0	100	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	100
Average		**84.0**	**2.4**	**86.5**	**0.0**	**1.9**	**0.0**	**1.9**	**11.7**	**88.3**

Transect F4 Sampled 11 June 2023

		Seagrasses			Algae					
Long=1 Short=2	Fouling 0,1,2	*Zostera* % cover	*Halophila* % cover	Total Seagrasses	*Codium* % cover	*Cystophyllum* % cover	% algae Filamentous	Total Algae	% Bare Ground	Total Cover
2	0	70	10	80	0	0	0	0	20	80
2	0	75	5	80	0	5	0	5	15	85
2	0	70	10	80	0	0	0	0	20	80
2	0	90	0	90	0	0	0	0	10	90
2	0	75	5	80	0	0	0	0	20	80
2	0	90	0	90	0	0	0	0	10	90
2	0	95	0	95	0	5	0	5	0	100
2	0	95	5	100	0	0	0	0	0	100
2	1	95	0	95	0	0	0	0	5	95
2	0	90	0	90	0	5	0	5	5	95
2	0	90	0	90	0	0	0	0	10	90
2	0	90	0	90	0	0	0	0	10	90
2	0	90	0	90	0	0	0	0	10	90
2	0	85	0	85	0	0	0	0	15	85
2	0	90	0	90	0	0	0	0	10	90
2	0	85	0	85	0	0	0	0	15	85
2	0	95	0	95	0	0	0	0	5	95
2	0	95	0	95	0	5	0	5	0	100
2	0	95	5	100	0	0	0	0	0	100
2	0	95	0	95	0	0	0	0	5	95
2	0	95	0	95	0	5	0	5	0	100
2	0	100	0	100	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	95	0	95	0	0	0	0	5	95
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
Average		**96.3**	**0.6**	**96.8**	**0.0**	**0.4**	**0.0**	**0.4**	**2.8**	**97.2**

Transect F5 Sampled 11 June 2023

		Seagrasses			Algae					
Long=1 Short=2	Fouling 0,1,2	*Zostera* % cover	*Halophila* % cover	Total Seagrasses	*Codium* % cover	*Cystophyllum* % cover	% algae Filamentous	Total Algae	% Bare Ground	Total Cover
2	0	65	0	65	0	0	0	0	35	65
2	0	80	0	80	0	5	0	5	15	85
2	0	90	0	90	0	5	0	5	5	95
2	0	90	0	90	0	5	0	5	5	95
2	0	85	0	85	0	5	0	5	10	90
2	0	75	0	75	0	5	0	5	25	80
2	0	85	0	85	0	5	0	5	10	90
2	0	85	0	85	0	10	0	10	5	95
2	0	95	0	95	0	5	0	5	0	100
2	0	90	0	90	0	5	0	5	5	95
2	0	90	0	90	0	5	0	5	5	95
2	0	90	0	90	0	5	0	5	5	95
2	0	95	0	95	0	5	0	5	0	100
2	0	90	0	90	0	10	0	10	0	100
2	0	88	0	88	0	10	0	10	2	98
2	0	85	0	85	0	15	0	15	0	100
2	1	95	0	95	0	5	0	5	0	100
2	1	90	0	90	0	10	0	10	0	100
2	1	90	0	90	0	10	0	10	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	90	0	90	0	5	0	5	5	95
2	1	95	0	95	0	5	0	5	0	100
2	1	90	0	90	0	5	0	5	5	95
2	1	90	0	90	0	5	0	5	5	95
2	0	80	0	80	0	20	0	20	0	100
2	0	80	0	80	0	15	0	15	5	95
2	0	80	0	80	0	10	0	10	10	90
2	0	95	0	95	0	0	0	0	5	95
2	0	85	0	85	0	10	0	10	5	95
2	0	80	0	80	0	15	0	15	5	95
2	0	95	0	95	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	5	95
2	0	90	0	90	0	0	0	0	10	90
2	0	90	0	90	0	0	0	0	10	90
2	0	85	0	85	0	5	0	5	10	90
2	0	85	0	85	0	0	0	0	15	85
2	0	88	2	90	0	0	0	0	10	90
2	0	90	0	90	0	0	0	0	10	90
2	0	83	0	83	0	2	0	2	15	85
2	0	85	0	85	0	5	0	5	10	90
2	0	80	0	80	0	0	0	0	20	80
2	0	75	0	75	0	5	0	5	20	80
2	0	70	0	70	0	0	0	0	30	70
2	0	70	0	70	0	0	0	0	30	70
2	0	65	0	65	0	0	0	0	35	65
2	0	65	0	65	0	5	0	5	30	70
2	0	65	0	65	0	0	0	0	35	65
2	0	65	0	65	0	10	0	10	25	75
2	0	65	0	65	0	10	0	10	25	75
2	0	85	0	85	0	0	0	0	15	85
2	0	95	0	95	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	5	95
2	0	75	0	75	0	0	0	0	25	75
2	0	85	0	85	0	0	0	0	15	85
1	0	100	0	100	0	0	0	0	0	100
1	0	95	0	95	0	0	0	0	5	95
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	95	0	95	0	5	0	5	0	100
2	0	50	5	55	0	0	0	0	45	55
2	0	85	0	85	0	0	0	0	15	85
2	0	85	0	85	0	0	0	0	15	85
2	0	80	0	80	0	0	0	0	20	80
2	0	90	0	90	0	0	0	0	10	90
1	1	95	0	95	0	0	0	0	5	95
1	1	100	0	100	0	0	0	0	0	100
1	1	90	0	90	0	0	0	0	10	90
1	0	95	0	95	0	0	0	0	5	95
Average		**85.6**	**0.1**	**85.7**	**0.0**	**3.9**	**0.0**	**3.9**	**10.5**	**89.5**

Transect F6 Sampled 11 June 2023

		Seagrasses			Algae					
Long=1 Short=2	Fouling 0,1,2	*Zostera* % cover	*Halophila* % cover	Total Seagrasses	*Codium* % cover	*Cystophyllum* % cover	% algae Filamentous	Total Algae	% Bare Ground	Total Cover
2	0	80	0	80	0	0	0	0	20	80
2	0	80	0	80	0	0	0	0	20	80
2	0	80	0	80	0	0	0	0	20	80
2	0	70	0	70	0	0	0	0	30	70
2	0	60	0	60	0	10	0	10	30	70
2	0	80	0	80	0	0	0	0	20	80
2	0	75	0	75	0	0	0	0	25	75
2	0	80	0	80	0	0	0	0	20	80
2	0	80	0	80	0	0	0	0	20	80
2	0	80	0	80	0	0	0	0	20	80
2	0	75	0	75	0	0	0	0	25	75
2	0	80	0	80	0	0	0	0	20	80
2	0	75	0	75	0	5	0	5	20	80
2	0	80	0	80	0	0	0	0	20	80
2	0	65	0	65	0	0	0	0	35	65
2	0	80	0	80	0	0	0	0	20	80
2	0	85	0	85	0	0	0	0	15	85
2	0	85	0	85	0	0	0	0	15	85
2	0	85	0	85	0	0	0	0	15	85
2	0	85	0	85	0	5	0	5	10	90
2	0	95	0	95	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	5	95
2	0	80	0	80	0	0	0	0	20	80
2	0	95	0	95	0	0	0	0	5	95
2	0	90	0	90	0	5	0	5	5	95
2	0	90	5	95	0	0	0	0	5	95
2	0	80	0	80	0	5	0	5	15	85
2	0	75	0	75	0	5	0	5	20	80
2	0	80	5	85	0	0	0	0	15	85
2	0	75	5	80	0	10	0	10	10	90
2	0	85	0	85	0	0	0	0	15	85
2	0	75	5	80	0	0	0	0	20	80
2	0	75	5	80	0	5	0	5	20	85
2	0	75	0	75	0	0	0	0	25	75
2	0	95	0	95	0	0	0	0	5	95
2	0	90	0	90	0	5	0	5	5	95
2	0	70	0	70	0	5	0	5	25	75
2	0	90	5	95	0	0	0	0	5	95
2	0	85	5	90	0	5	0	5	5	95
2	0	85	5	90	0	5	0	5	5	95
2	0	90	5	95	0	0	0	0	5	95
2	0	85	5	90	0	0	0	0	10	90
2	0	85	5	90	0	5	0	5	5	95
2	0	80	10	90	0	5	0	5	5	95
2	0	75	10	85	0	5	0	5	10	90
2	0	95	0	95	0	0	0	0	5	95
2	0	80	5	85	0	5	0	5	10	90
2	0	85	10	95	0	0	0	0	5	95
2	0	85	0	85	0	0	0	0	15	85
2	0	80	10	90	0	0	0	0	10	90
2	0	85	0	85	0	5	0	5	10	90
2	0	85	10	95	0	0	0	0	5	95
2	0	80	10	90	0	0	0	0	10	90
2	0	85	10	95	0	0	0	0	5	95
2	0	85	10	95	0	0	0	0	5	95
2	0	85	10	95	0	0	0	0	5	95
2	0	85	5	90	0	0	0	0	10	90
2	0	90	5	95	0	0	0	0	5	95
2	0	90	5	95	0	0	0	0	5	95
2	0	85	5	90	0	0	0	0	10	90
2	0	95	5	100	0	0	0	0	0	100
2	0	80	5	85	0	5	0	5	10	90
2	0	85	5	90	0	0	0	0	10	90
2	0	80	5	85	0	5	0	5	10	90
Average		**83.2**	**2.8**	**86.0**	**0.0**	**1.5**	**0.0**	**1.5**	**12.6**	**87.5**

Transect F7 Sampled 11 June 2023

		Seagrasses			Algae					
Long=1 Short=2	Fouling 0,1,2	*Zostera* % cover	*Halophila* % cover	Total Seagrasses	*Codium* % cover	*Cystophyllum* % cover	% algae Filamentous	Total Algae	% Bare Ground	Total Cover
2	0	65	0	65	0	0	0	0	35	65
2	0	85	0	85	0	0	0	0	15	85
2	0	75	0	75	0	0	0	0	25	75
2	0	75	0	75	0	0	0	0	25	75
2	0	80	10	90	0	0	0	0	10	90
2	0	90	5	95	0	0	0	0	5	95
2	0	80	5	85	0	5	0	5	10	90
2	0	80	5	85	0	0	0	0	15	85
2	0	80	0	80	0	0	0	0	20	80
2	0	85	0	85	0	0	0	0	15	85
2	0	70	0	70	0	0	0	0	30	70
2	0	75	0	75	0	0	0	0	25	75
2	0	90	0	90	0	0	0	0	10	90
2	0	80	5	85	0	0	0	0	15	85
2	0	85	5	90	0	5	0	5	5	95
2	0	90	0	90	0	0	0	0	10	90
2	0	90	5	95	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	5	95
2	0	90	0	90	0	5	0	5	5	95
2	0	90	0	90	0	5	0	5	5	95
2	0	90	5	95	0	0	0	0	5	95
2	0	85	0	85	0	0	0	0	15	85
2	0	85	0	85	0	0	0	0	15	85
2	0	85	0	85	0	0	0	0	15	85
2	0	80	0	80	0	0	0	0	20	80
2	0	85	0	85	0	0	0	0	15	85
2	0	90	5	95	0	0	0	0	5	95
2	0	85	0	85	0	0	0	0	15	85
2	0	85	0	85	0	0	0	0	15	85
2	0	75	5	80	0	0	0	0	20	80
2	0	75	5	80	0	0	0	0	20	80
2	0	80	0	80	0	0	0	0	20	80
2	0	80	10	90	0	0	0	0	10	90
2	0	65	0	65	0	0	0	0	35	65
2	0	65	0	65	0	0	0	0	35	65
2	0	50	5	55	0	0	0	0	45	55
2	0	75	5	80	0	0	0	0	20	80
2	0	75	0	75	0	0	0	0	25	75
2	0	65	5	70	0	0	0	0	30	70
2	0	65	0	65	0	0	0	0	35	65
2	0	65	0	65	0	0	0	0	35	65
2	0	65	0	65	0	0	0	0	35	65
2	0	70	5	75	0	0	0	0	25	75
2	0	80	0	80	0	0	0	0	20	80
2	0	65	0	65	0	0	0	0	35	65
2	0	65	0	65	0	0	0	0	35	65
2	0	65	0	65	0	0	0	0	35	65
2	0	50	0	50	0	0	0	0	50	50
2	0	50	0	50	0	0	0	0	50	50
2	0	50	0	50	0	0	0	0	50	50
2	0	80	0	80	0	0	0	0	20	80
2	0	75	10	85	0	0	0	0	15	85
2	0	75	10	85	0	0	0	0	15	85
2	0	75	5	80	0	0	0	0	20	80
2	0	75	5	80	0	0	0	0	20	80
2	0	75	0	75	0	0	0	0	25	75
2	0	60	5	65	0	0	0	0	35	65
2	0	60	0	60	0	0	0	0	40	60
2	0	75	5	80	0	0	0	0	20	80
2	0	85	10	95	0	0	0	0	5	95
2	0	75	5	80	0	0	0	0	20	80
2	0	75	0	75	0	0	0	0	25	75
2	0	90	0	90	0	0	0	0	10	90
2	0	80	5	85	0	0	0	0	15	85
2	0	95	0	95	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	5	95
2	0	90	5	95	0	0	0	0	5	95
Average		**77.1**	**2.3**	**79.4**	**0.0**	**0.3**	**0.0**	**0.3**	**20.3**	**79.7**

Western shore Summerland Point

Transect E7										Sampled 9 June 2023
		Seagrasses			Algae					
Long=1 Short=2	Fouling 0,1,2	*Zostera* % cover	*Halophila* % cover	Total Seagrasses	*Codium* % cover	*Cystophyllum* % cover	% algae Filamentous	Total Algae	% Bare Ground	Total Cover
2	0	85	0	85	0	0	0	0	15	85
2	0	85	0	85	0	0	0	0	15	85
2	0	80	5	85	0	0	0	0	15	85
2	0	90	0	90	0	0	0	0	10	90
2	0	95	0	95	0	0	0	0	5	95
2	0	80	0	80	0	0	0	0	20	80
2	0	85	0	85	0	0	0	0	15	85
2	0	85	0	85	0	0	0	0	15	85
2	0	90	0	90	0	0	0	0	10	90
2	0	95	0	95	0	0	0	0	5	95
2	0	85	0	85	0	0	0	0	15	85
2	0	90	0	90	0	0	0	0	10	90
2	0	90	0	90	0	0	0	0	10	90
2	0	85	5	90	0	0	0	0	10	90
2	0	90	0	90	0	0	0	0	10	90
2	0	85	5	90	0	0	0	0	10	90
2	0	90	0	90	0	0	0	0	10	90
2	0	90	0	90	0	0	0	0	10	90
2	0	95	0	95	0	0	0	0	5	95
1	0	90	0	90	0	0	0	0	10	90
2	0	95	0	95	0	0	0	0	5	95
2	0	90	0	90	0	0	0	0	10	90
2	0	85	0	85	0	0	0	0	15	85
2	0	80	5	85	0	0	0	0	15	85
2	0	75	5	80	0	0	0	0	20	80
2	0	60	0	60	0	0	0	0	40	60
2	0	70	0	70	0	0	0	0	30	70
2	0	70	5	75	0	0	0	0	25	75
2	0	80	5	85	0	0	0	0	20	85
2	0	70	5	75	0	0	0	0	25	75
2	0	80	5	85	0	0	0	0	15	85
2	0	80	0	80	0	0	0	0	20	80
2	0	85	0	85	0	0	0	0	15	85
2	0	95	0	95	0	0	0	0	5	95
2	0	90	0	90	0	0	0	0	10	90
2	0	95	0	95	0	0	0	0	5	95
2	0	100	0	100	0	0	0	0	0	100
2	0	95	0	95	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	5	95
2	0	85	0	85	0	0	0	0	15	85
2	0	90	5	95	0	0	0	0	10	95
2	0	85	5	90	0	0	0	0	10	90
2	0	95	0	95	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	5	95
2	0	85	5	90	0	0	0	0	10	90
2	0	75	5	80	0	0	0	0	20	80
2	0	85	0	85	0	0	0	0	15	85
2	0	80	0	80	0	0	0	0	20	80
2	0	75	0	75	0	0	0	0	25	75
2	0	80	5	85	0	0	0	0	15	85
2	0	70	5	75	0	10	0	10	15	85
2	0	85	0	85	0	0	0	0	15	85
2	0	90	0	90	0	0	0	0	10	90
2	0	85	0	85	0	0	0	0	15	85
2	0	90	0	90	0	5	0	5	5	95
2	0	70	5	75	0	0	0	0	25	75
2	0	70	10	80	0	0	0	0	20	80
2	0	90	0	90	0	0	0	0	10	90
2	0	80	5	85	0	0	0	0	15	85
2	0	85	0	85	0	0	0	0	15	85
2	0	85	0	85	0	0	0	0	15	85
2	0	90	0	90	0	0	0	0	10	90
2	0	90	0	90	0	0	0	0	10	90
2	0	100	0	100	0	0	0	0	0	100
2	0	95	0	95	0	0	0	0	5	95
2	0	90	0	90	0	0	0	0	10	90
2	0	100	0	100	0	0	0	0	0	100
Average		85.9	1.4	87.3	0.0	0.2	0.0	0.2	12.6	87.5

Transect T1 Sampled 9 June 2023

		Seagrasses			Algae					
Long=1 Short=2	Fouling 0,1,2	*Zostera* % cover	*Halophila* % cover	Total Seagrasses	*Codium* % cover	*Cystophyllum* % cover	% algae Filamentous	Total Algae	% Bare Ground	Total Cover
2	0	70	10	80	0	0	0	0	20	80
2	0	80	5	85	0	0	0	0	15	85
2	0	90	5	95	0	0	0	0	5	95
2	0	40	10	50	0	30	0	30	20	80
2	0	85	10	95	0	0	0	0	5	95
2	1	80	10	90	0	10	0	10	0	100
2	1	90	10	100	0	0	0	0	0	100
2	1	75	5	80	0	20	0	20	0	100
2	1	85	5	90	0	10	0	10	0	100
1	1	90	0	90	0	10	0	10	0	100
1	1	85	0	85	0	0	0	0	25	85
1	1	100	0	100	0	0	0	0	0	100
1	0	85	0	85	0	15	0	15	0	100
1	0	95	0	95	0	0	0	0	5	95
1	0	95	0	95	0	0	0	0	5	95
1	0	85	0	85	0	15	0	15	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	0	95	0	95	0	5	0	5	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	95	0	95	0	0	5	5	0	100
1	0	95	0	95	0	0	0	0	0	95
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	85	0	85	0	15	0	15	0	100
1	0	75	0	75	0	25	0	25	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	95	0	95	0	5	0	5	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	60	0	60	0	0	0	0	40	60
1	0	50	0	50	0	0	5	5	45	55
1	1	100	0	100	0	0	0	0	0	100
1	1	90	0	90	0	5	0	5	5	95
1	1	100	0	100	0	0	0	0	0	100
1	0	95	0	95	0	5	0	5	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	1	98	0	98	0	0	2	2	0	100
1	1	100	0	100	0	0	0	0	0	100
1	0	95	0	95	0	0	0	0	5	95
1	1	100	0	100	0	0	0	0	0	100
1	1	90	0	90	0	0	0	0	10	90
1	1	80	0	80	0	0	0	0	20	80
1	1	80	0	80	0	0	0	0	20	80
1	1	80	0	80	0	5	0	5	15	85
1	1	85	0	85	0	0	5	5	10	90
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	95	0	95	0	0	0	0	5	95
1	1	95	0	95	0	0	0	0	5	95
1	1	95	0	95	0	0	0	0	5	95
1	1	85	0	85	0	0	0	0	15	85
1	1	90	0	90	0	0	0	0	10	90
1	1	90	0	90	0	0	0	0	10	90
1	1	80	0	80	0	0	0	0	20	80
Average		**91.2**	**1.0**	**92.3**	**0.0**	**2.6**	**0.3**	**2.8**	**5.0**	**95.1**

Transect T2 Sampled 9 June 2023

		Seagrasses			Algae					
Long=1 Short=2	Fouling 0,1,2	*Zostera* % cover	*Halophila* % cover	Total Seagrasses	*Codium* % cover	*Cystophyllum* % cover	% algae Filamentous	Total Algae	% Bare Ground	Total Cover
2	0	50	0	50	0	5	0	5	45	55
2	1	80	0	80	0	10	0	10	10	90
2	1	70	0	70	0	15	0	15	15	85
2	1	60	0	60	0	15	0	15	25	75
2	1	65	5	70	0	10	0	10	20	80
2	0	55	0	55	0	30	0	30	15	85
2	0	65	0	65	0	20	0	20	15	85
2	0	40	0	40	0	50	0	50	10	90
2	0	20	0	20	0	70	0	70	10	90
2	0	70	0	70	0	20	0	20	10	90
2	0	90	0	90	0	0	0	0	10	90
1	1	95	0	95	0	0	0	0	5	95
1	1	100	0	100	0	0	0	0	0	100
1	1	85	0	85	0	5	0	5	10	90
1	1	100	0	100	0	0	0	0	0	100
1	1	95	0	95	0	0	0	0	5	95
1	1	85	0	85	0	10	0	10	5	95
1	1	60	0	60	0	40	0	40	0	100
1	1	20	0	20	0	30	0	30	50	50
0	0	0	0	0	0	0	0	0	100	0
0	0	0	0	0	0	0	0	0	100	0
0	0	0	0	0	0	0	0	0	100	0
2	0	25	0	25	0	0	0	0	75	25
2	0	90	0	90	0	0	0	0	10	90
2	0	90	0	90	0	0	0	0	10	90
2	0	95	0	95	0	0	0	0	5	95
2	0	90	0	90	0	0	0	0	10	90
2	0	90	0	90	0	0	0	0	10	90
2	0	95	0	95	0	0	0	0	5	95
2	1	95	0	95	0	0	0	0	5	95
2	0	90	0	90	0	0	0	0	10	90
2	0	95	0	95	0	0	0	0	5	95
2	0	85	5	90	0	0	0	0	10	90
2	0	85	5	90	0	0	0	0	10	90
2	0	70	5	75	0	5	0	5	20	80
2	0	70	0	70	0	0	0	0	30	70
2	1	85	0	85	0	0	0	0	15	85
2	0	90	0	90	0	0	0	0	10	90
2	0	40	0	40	0	0	0	0	60	40
2	1	90	0	90	0	0	0	0	10	90
2	1	95	0	95	0	0	0	0	5	95
2	1	90	0	90	0	0	0	0	10	90
2	1	90	0	90	0	0	0	0	10	90
2	1	85	0	85	0	0	0	0	15	85
2	0	95	0	95	0	0	0	0	5	95
2	1	85	0	85	0	0	0	0	15	85
2	1	75	0	75	0	0	0	0	25	75
2	0	75	0	75	0	0	0	0	25	75
2	1	75	0	75	0	0	0	0	25	75
2	1	60	0	60	0	0	0	0	40	60
2	1	60	0	60	0	0	0	0	40	60
2	1	80	0	80	0	0	0	0	20	80
2	1	80	0	80	0	0	0	0	20	80
2	1	90	0	90	0	0	0	0	10	90
2	1	80	0	80	0	0	0	0	20	80
2	1	70	0	70	0	0	0	0	30	70
2	1	70	0	70	0	0	0	0	30	70
2	1	90	0	90	0	0	0	0	10	90
2	1	80	0	80	0	0	0	0	20	80
2	1	80	0	80	0	0	0	0	20	80
2	1	80	0	80	0	0	0	0	20	80
2	1	90	0	90	0	0	0	0	10	90
2	1	75	0	75	0	0	0	0	25	75
2	1	85	0	85	0	0	0	0	15	85
2	1	80	0	80	0	0	0	0	20	80
2	1	80	0	80	0	0	0	0	20	80
2	1	80	0	80	0	0	0	0	20	80
2	1	90	0	90	0	0	0	0	10	90
Average		**74.1**	**0.3**	**74.4**	**0.0**	**4.9**	**0.0**	**4.9**	**20.7**	**79.3**

Transect T3 Sampled 9 June 2023

		Seagrasses			Algae					
Long=1 Short=2	Fouling 0,1,2	*Zostera* % cover	*Halophila* % cover	Total seagrasses	*Codium* % cover	*Cystophyllum* % cover	% algae Filamentous	Total Algae	% Bare Ground	Total Cover
2	0	70	0	70	0	20	0	20	10	90
2	0	50	0	50	0	25	0	25	25	75
2	0	55	0	55	0	30	0	30	15	85
2	0	90	0	90	0	0	0	0	10	90
2	0	95	5	100	0	0	0	0	0	100
2	0	95	5	100	0	5	0	5	0	105
2	1	80	5	85	0	0	0	0	15	85
2	1	85	5	90	0	0	0	0	10	90
2	1	75	15	90	0	0	0	0	10	90
2	1	85	0	85	0	0	0	0	15	85
2	1	85	0	85	0	0	0	0	15	85
2	1	75	0	75	0	0	0	0	25	75
2	1	70	5	75	0	0	0	0	25	75
2	1	80	0	80	0	0	0	0	15	80
2	1	85	0	85	0	0	0	0	15	85
2	1	80	0	80	0	5	0	5	15	85
2	1	90	0	90	0	0	0	0	10	90
2	1	90	0	90	0	0	0	0	10	90
2	1	95	0	95	0	0	0	0	5	95
2	1	95	0	95	0	0	0	0	5	95
2	1	95	0	95	0	0	0	0	5	95
2	1	98	0	98	0	0	0	0	2	98
2	1	85	0	85	0	0	0	0	15	85
2	1	90	0	90	0	0	0	0	10	90
2	1	95	0	95	0	0	0	0	5	95
2	1	100	0	100	0	0	0	0	0	100
2	1	95	0	95	0	0	0	0	5	95
2	1	100	0	100	0	0	0	0	0	100
2	1	90	0	90	0	0	0	0	10	90
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	95	0	95	0	0	0	0	5	95
2	1	95	0	95	0	0	0	0	5	95
2	1	75	0	75	0	20	0	20	5	95
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	95	0	95	0	0	0	0	5	95
2	1	100	0	100	0	0	0	0	0	100
2	1	90	0	90	0	0	0	0	0	90
2	1	90	0	90	0	0	0	0	10	90
2	1	90	0	90	0	0	0	0	10	90
2	1	95	0	95	0	0	0	0	5	95
2	1	85	0	85	0	0	0	0	15	85
2	1	95	0	95	0	0	0	0	5	95
2	1	98	0	98	0	0	0	0	2	98
2	1	98	0	98	0	0	0	0	2	98
2	1	98	0	98	0	0	0	0	2	98
2	1	95	0	95	0	0	0	0	5	95
2	1	100	0	100	0	0	0	0	0	100
2	1	95	0	95	0	0	0	0	5	95
2	1	98	0	98	0	0	0	0	2	98
2	1	95	0	95	0	0	0	0	5	95
2	1	100	0	100	0	0	0	0	0	100
2	1	85	0	85	0	0	0	0	15	85
2	1	95	0	95	0	0	0	0	5	95
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	80	0	80	0	0	0	0	20	80
2	1	70	0	70	0	0	0	0	30	70
2	1	90	0	90	0	0	0	0	10	90
0	0	0	0	0	0	25	0	25	75	25
2	1	70	0	70	0	10	0	10	20	80
2	1	65	0	65	0	0	0	0	45	65
2	1	100	0	100	0	0	0	0	0	100
2	1	85	0	85	0	5	0	5	10	90
Average		**88.2**	**0.6**	**88.8**	**0.0**	**2.1**	**0.0**	**2.1**	**9.1**	**90.9**

Transect T4 Sampled 9 June 2023

		Seagrasses			Algae					
Long=1 Short=2	Fouling 0,1,2	*Zostera* % cover	*Halophila* % cover	Total Seagrasses	*Codium* % cover	*Cystophyllum* % cover	% algae Filamentous	Total Algae	% Bare Ground	Total Cover
2	1	95	0	95	0	0	0	0	5	95
2	1	80	0	80	0	5	0	5	15	85
2	1	90	0	90	0	0	0	0	10	90
2	1	50	0	50	0	0	0	0	50	50
2	1	75	0	75	0	0	0	0	25	75
2	1	90	0	90	0	0	0	0	10	90
2	1	95	0	95	0	0	0	0	5	95
2	1	90	0	90	0	0	0	0	10	90
2	1	100	0	100	0	0	0	0	0	100
2	1	95	0	95	0	0	0	0	5	95
2	1	95	0	95	0	0	0	0	5	95
2	1	95	0	95	0	0	0	0	5	95
2	1	100	0	100	0	0	0	0	0	100
2	1	95	0	95	0	0	0	0	5	95
2	1	100	0	100	0	0	0	0	0	100
2	1	95	0	95	0	0	0	0	5	95
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	95	0	95	0	0	0	0	5	95
2	1	95	0	95	0	0	0	0	5	95
2	1	90	0	90	0	0	0	0	10	90
2	1	100	0	100	0	0	0	0	0	100
2	1	60	0	60	0	30	0	30	10	90
2	1	40	0	40	0	40	0	40	20	80
2	1	45	5	50	0	0	0	0	50	50
2	1	95	0	95	0	0	0	0	5	95
2	1	95	0	95	0	0	0	0	5	95
2	1	100	0	100	0	0	0	0	0	100
2	1	95	0	95	0	0	0	0	5	95
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	98	0	98	0	0	0	0	2	98
2	1	75	0	75	0	0	0	0	25	75
2	1	75	0	75	0	0	0	0	25	75
2	1	70	0	70	0	0	0	0	30	70
2	1	70	0	70	0	0	0	0	30	70
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	95	0	95	0	0	0	0	5	95
2	1	90	0	90	0	0	0	0	10	90
2	1	90	0	90	0	0	0	0	10	90
2	1	75	0	75	0	0	0	0	25	75
2	1	75	0	75	0	0	0	0	25	75
2	1	90	0	90	0	0	0	0	10	90
2	1	95	0	95	0	0	0	0	5	95
2	1	100	0	100	0	0	0	0	0	100
2	1	95	0	95	0	0	0	0	5	95
2	1	85	0	85	0	0	0	0	15	85
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	90	0	90	0	0	0	0	10	90
2	1	95	0	95	0	0	0	0	5	95
2	1	95	0	95	0	0	0	0	5	95
2	1	90	0	90	0	0	0	0	10	90
2	1	95	0	95	0	0	0	0	5	95
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	95	0	95	0	0	0	0	5	95
2	1	95	0	95	0	0	0	0	5	95
2	1	80	0	80	0	0	0	0	20	80
2	1	80	0	80	0	0	0	0	20	80
2	1	90	0	90	0	0	0	0	10	90
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
Average		**90.2**	**0.1**	**90.3**	**0.0**	**1.1**	**0.0**	**1.1**	**8.6**	**91.4**

Transect T5 Sampled 9 June 2023

		Seagrasses			Algae					
Long=1 Short=2	Fouling 0,1,2	*Zostera* % cover	*Halophila* % cover	Total seagrasses	*Codium* % cover	*Cystophyllum* % cover	% algae Filamentous	Total Algae	% Bare Ground	Total Cover
1	1	70	0	70	0	0	0	0	30	70
1	1	75	0	75	0	0	0	0	25	75
1	1	80	0	80	0	0	0	0	20	80
2	1	70	0	70	0	0	0	0	30	70
2	1	70	0	70	0	0	0	0	30	70
2	1	70	0	70	0	0	0	0	30	70
2	1	75	0	75	0	0	0	0	25	75
2	1	75	0	75	0	0	0	0	25	75
2	1	75	0	75	0	0	0	0	25	75
2	1	75	0	75	0	0	0	0	25	75
2	1	80	5	85	0	0	0	0	15	85
2	1	80	5	85	0	5	0	5	10	90
2	1	80	5	85	0	0	0	0	15	85
2	1	75	5	80	0	0	0	0	20	80
2	1	85	5	90	0	0	0	0	10	90
2	1	80	5	85	0	0	0	0	15	85
2	1	80	5	85	0	0	0	0	15	85
2	1	80	0	80	0	0	0	0	20	80
2	1	85	0	85	0	0	0	0	15	85
2	1	80	0	80	0	0	0	0	20	80
2	1	85	0	85	0	0	0	0	15	85
2	1	85	0	85	0	0	0	0	15	85
2	1	85	0	85	0	0	0	0	15	85
2	1	90	0	90	0	0	0	0	10	90
2	1	90	0	90	0	0	0	0	10	90
2	1	90	0	90	0	0	0	0	10	90
2	1	95	0	95	0	0	0	0	5	95
2	1	95	0	95	0	0	0	0	5	95
2	1	90	5	95	0	0	0	0	5	95
2	1	90	5	95	0	0	0	0	5	95
2	1	95	0	95	0	0	0	0	5	95
2	1	85	5	90	0	0	0	0	10	90
2	1	95	0	95	0	0	0	0	5	95
2	1	90	0	90	0	0	0	0	10	90
2	1	85	0	85	0	0	0	0	15	85
2	1	90	0	90	0	0	0	0	10	90
2	1	95	5	100	0	0	0	0	0	100
2	1	90	5	95	0	0	0	0	5	95
2	1	85	0	85	0	0	0	0	15	85
2	1	85	0	85	0	0	0	0	15	85
2	1	75	5	80	0	0	0	0	20	80
2	1	95	0	95	0	0	0	0	5	95
2	1	95	0	95	0	0	0	0	5	95
2	1	90	0	90	0	0	0	0	10	90
2	1	85	0	85	0	0	0	0	15	85
2	1	85	5	90	0	0	0	0	10	90
2	1	80	5	85	0	0	0	0	15	85
2	1	75	5	80	0	10	0	10	10	90
2	1	80	5	85	0	0	0	0	15	85
2	1	80	10	90	0	0	0	0	10	90
2	1	80	5	85	0	0	0	0	15	85
2	1	85	5	90	0	0	0	0	10	90
2	1	75	5	80	0	0	0	0	20	80
2	1	75	0	75	0	10	0	10	15	85
2	1	85	0	85	0	0	0	0	15	85
2	1	80	5	85	0	5	0	5	10	90
2	1	80	5	85	0	0	0	0	15	85
2	1	90	0	90	0	0	0	0	10	90
2	1	75	5	80	0	0	0	0	20	80
2	1	80	0	80	0	0	0	0	20	80
2	1	75	0	75	0	5	0	5	20	80
2	1	80	0	80	0	0	0	0	20	80
2	1	85	0	85	0	0	0	0	15	85
2	1	70	10	80	0	0	0	0	20	80
2	1	75	0	75	0	0	0	0	25	75
2	1	75	0	75	0	0	0	0	25	75
2	1	75	5	80	0	0	0	0	20	80
2	1	70	10	80	0	5	0	5	15	85
Average		**82.1**	**2.2**	**84.3**	**0.0**	**0.6**	**0.0**	**0.6**	**15.1**	**84.9**

Transect T6 Sampled 9 June 2023

		Seagrasses			Algae					
Long=1 Short=2	Fouling 0,1,2	*Zostera* % cover	*Halophila* % cover	Total seagrasses	*Codium* % cover	*Cystophyllum* % cover	% algae Filamentous	Total Algae	% Bare Ground	Total Cover
1	0	75	0	75	0	0	0	0	25	75
1	0	85	0	85	0	0	0	0	15	85
1	0	85	0	85	0	0	0	0	15	85
1	0	90	0	90	0	0	0	0	10	90
1	0	95	0	95	0	0	0	0	5	95
1	0	95	0	95	0	0	0	0	5	95
1	0	95	0	95	0	0	0	0	5	95
1	1	90	5	95	0	0	0	0	5	95
2	1	95	0	95	0	0	0	0	5	95
2	1	90	0	90	0	0	0	0	10	90
2	1	85	0	85	0	0	0	0	15	85
2	1	90	0	90	0	0	0	0	10	90
2	1	90	0	90	0	0	0	0	10	90
2	1	90	0	90	0	0	0	0	10	90
2	1	90	0	90	0	0	0	0	10	90
2	1	95	0	95	0	0	0	0	5	95
2	1	90	0	90	0	0	0	0	10	90
2	1	85	0	85	0	0	0	0	15	85
2	1	85	0	85	0	0	0	0	15	85
2	1	90	0	90	0	0	0	0	10	90
2	1	90	0	90	0	0	0	0	10	90
2	1	90	0	90	0	0	0	0	10	90
2	1	90	0	90	0	0	0	0	10	90
2	1	85	0	85	0	0	0	0	15	85
2	1	85	0	85	0	0	0	0	15	85
2	1	90	0	90	0	0	0	0	10	90
2	1	85	0	85	0	0	0	0	15	85
2	1	80	5	85	0	0	0	0	15	85
2	1	85	0	85	0	0	0	0	15	85
2	1	85	0	85	0	0	0	0	15	85
2	1	95	0	95	0	0	0	0	5	95
2	1	80	5	85	0	5	0	5	10	90
2	1	70	5	75	0	0	0	0	25	75
2	1	75	5	80	0	0	0	0	20	80
2	1	80	5	85	0	0	0	0	15	85
2	1	85	5	90	0	0	0	0	10	90
2	1	80	5	85	0	0	0	0	15	85
1	1	80	5	85	0	0	0	0	15	85
2	1	100	0	100	0	0	0	0	0	100
2	1	90	0	90	0	0	0	0	10	90
2	1	85	0	85	0	0	0	0	15	85
2	1	90	0	90	0	0	0	0	10	90
2	1	90	0	90	0	0	0	0	10	90
2	1	85	5	90	0	0	0	0	10	90
2	1	75	5	80	0	0	0	0	20	80
2	1	85	0	85	0	0	0	0	15	85
2	1	90	0	90	0	0	0	0	10	90
2	1	90	0	90	0	0	0	0	10	90
2	1	80	0	80	0	0	0	0	20	80
1	0	75	0	75	0	0	0	0	25	75
1	1	75	0	75	0	0	0	0	25	75
1	1	75	0	75	0	0	0	0	25	75
1	1	75	0	75	0	0	0	0	25	75
1	1	70	5	75	0	0	0	0	25	75
1	1	70	5	75	0	0	0	0	25	75
1	1	95	0	95	0	0	0	0	5	95
1	0	75	5	80	0	0	0	0	20	80
1	0	75	5	80	0	0	0	0	20	80
1	0	90	0	90	0	0	0	0	10	90
1	0	95	0	95	0	0	0	0	5	95
1	0	85	5	90	0	0	0	0	10	90
1	0	80	5	85	0	0	0	0	15	85
1	0	70	10	80	0	0	0	0	20	80
2	0	65	5	70	0	0	0	0	30	70
2	0	80	5	85	0	0	0	0	15	85
2	0	75	5	80	0	0	0	0	20	80
2	0	80	5	85	0	0	0	0	15	85
2	0	75	0	75	0	0	0	0	25	75
Average		**84.3**	**1.7**	**86.0**	**0.0**	**0.1**	**0.0**	**0.1**	**13.9**	**86.1**

Transect T7 Sampled 9 June 2023

		Seagrasses			Algae					
Long=1 Short=2	Fouling 0,1,2	*Zostera* % cover	*Halophila* % cover	Total seagrasses	*Codium* % cover	*Cystophyllum* % cover	% algae Filamentous	Total Algae	% Bare Ground	Total Cover
2	0	65	5	70	0	0	0	0	30	70
2	0	80	0	80	0	0	0	0	20	80
2	0	70	5	75	0	0	0	0	25	75
2	0	70	5	75	0	0	0	0	25	75
1	0	90	5	95	0	0	0	0	5	95
1	0	95	0	95	0	0	0	0	5	95
1	0	90	0	90	0	0	0	0	10	90
1	0	90	0	90	0	0	0	0	10	90
1	0	95	0	95	0	0	0	0	5	95
1	0	95	0	95	0	0	0	0	5	95
1	0	95	0	95	0	0	0	0	5	95
1	0	100	0	100	0	0	0	0	0	100
1	0	85	0	85	0	0	0	0	15	85
1	0	95	0	95	0	0	0	0	5	95
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	95	0	95	0	0	0	0	5	95
1	0	90	0	90	0	0	0	0	10	90
1	0	90	0	90	0	0	0	0	10	90
1	0	80	0	80	0	0	0	0	20	80
1	0	90	0	90	0	0	0	0	10	90
1	0	85	0	85	0	0	0	0	15	85
1	0	95	0	95	0	0	0	0	5	95
1	0	98	0	98	0	0	0	0	2	98
1	0	90	0	90	0	0	0	0	10	90
1	0	80	0	80	0	0	0	0	20	80
2	0	90	0	90	0	0	0	0	10	90
2	0	80	5	85	0	0	0	0	15	85
2	0	75	0	75	0	0	0	0	25	75
2	0	80	5	85	0	0	0	0	15	85
2	0	85	0	85	0	0	0	0	15	85
2	0	85	5	90	0	0	0	0	10	90
2	0	85	0	85	0	0	0	0	15	85
2	0	90	0	90	0	0	0	0	10	90
2	0	75	5	80	0	0	0	0	20	80
2	0	80	5	85	0	0	0	0	15	85
2	0	93	2	95	0	0	0	0	5	95
2	0	70	4	74	0	0	0	0	26	74
2	0	70	5	75	0	0	0	0	25	75
2	0	80	0	80	0	0	0	0	20	80
1	0	75	0	75	0	0	0	0	25	75
1	0	75	0	75	0	0	0	0	25	75
1	0	80	0	80	0	0	0	0	20	80
2	0	70	0	70	0	0	0	0	30	70
2	0	80	0	80	0	0	0	0	20	80
2	0	65	0	65	0	10	0	10	25	75
2	0	80	2	82	0	0	0	0	13	82
2	0	70	0	70	0	0	0	0	30	70
2	0	80	0	80	0	5	0	5	15	85
2	0	75	5	80	0	0	0	0	20	80
2	0	80	5	85	0	0	0	0	15	85
2	0	60	5	65	0	0	0	0	35	65
1	0	85	0	85	0	0	0	0	15	85
2	0	65	0	65	0	0	0	0	35	65
2	0	70	0	70	0	0	0	0	30	70
2	0	90	0	90	0	0	0	0	10	90
2	0	95	0	95	0	0	0	0	5	95
2	0	80	0	80	0	0	0	0	20	80
2	0	90	0	90	0	0	0	0	10	90
2	0	85	0	85	0	0	0	0	15	85
2	0	75	0	75	0	0	0	0	25	75
2	0	80	5	85	0	0	0	0	15	85
1	0	90	0	90	0	0	0	0	10	90
2	0	90	0	90	0	0	0	0	10	90
1	0	80	0	80	0	0	0	0	20	80
1	0	80	0	80	0	0	0	0	20	80
1	0	70	0	70	0	0	0	0	30	70
1	0	90	0	90	0	0	0	0	10	90
Average		**83.1**	**1.1**	**84.3**	**0.0**	**0.2**	**0.0**	**0.2**	**15.5**	**84.5**

Transect T8 Sampled 9 June 2023

		Seagrasses			Algae					
Long=1 Short=2	Fouling 0,1,2	*Zostera* % cover	*Halophila* % cover	Total seagrasses	*Codium* % cover	*Cystophyllum* % cover	% algae Filamentous	Total Algae	% Bare Ground	Total Cover
2	0	55	0	55	0	0	0	0	45	55
2	0	65	0	65	0	0	0	0	35	65
1	0	70	5	75	0	0	0	0	25	75
1	0	65	5	70	0	0	0	0	30	70
2	0	60	10	70	0	0	0	0	30	70
2	0	80	10	90	0	0	0	0	10	90
1	0	70	10	80	0	0	0	0	20	80
1	0	70	10	80	0	0	0	0	20	80
1	0	60	5	65	0	0	0	0	35	65
1	0	75	10	85	0	0	0	0	25	85
2	0	90	0	90	0	0	0	0	10	90
2	0	75	5	80	0	0	0	0	20	80
1	0	75	10	85	0	0	0	0	20	85
1	0	85	0	85	0	0	0	0	15	85
1	0	70	10	80	0	0	0	0	20	80
1	0	70	15	85	0	0	0	0	15	85
1	0	73	2	75	0	0	0	0	25	75
1	0	95	0	95	0	0	0	0	5	95
1	0	80	5	85	0	0	0	0	15	85
1	0	95	0	95	0	0	0	0	5	95
1	0	85	0	85	0	0	0	0	15	85
1	0	93	2	95	0	0	0	0	5	95
1	0	80	0	80	0	0	0	0	20	80
2	0	85	5	90	0	0	0	0	10	90
1	0	80	0	80	0	0	0	0	20	80
2	0	80	0	80	0	0	0	0	20	80
1	0	75	0	75	0	0	0	0	25	75
1	0	75	0	75	0	0	0	0	25	75
1	0	85	0	85	0	0	0	0	15	85
2	0	85	0	85	0	0	0	0	15	85
2	0	90	0	90	0	0	0	0	10	90
2	0	90	0	90	0	0	0	0	10	90
2	0	80	5	85	0	0	0	0	15	85
1	0	90	0	90	0	0	0	0	10	90
2	0	80	0	80	0	0	0	0	20	80
1	0	85	5	90	0	0	0	0	10	90
1	0	100	0	100	0	0	0	0	0	100
1	0	95	0	95	0	0	0	0	5	95
1	0	90	0	90	0	0	0	0	10	90
2	0	90	0	90	0	0	0	0	10	90
2	0	85	0	85	0	0	0	0	15	85
2	0	75	0	75	0	0	0	0	25	75
2	0	90	0	90	0	0	0	0	10	90
2	0	85	0	85	0	0	0	0	15	85
2	0	90	5	95	0	0	0	0	5	95
2	0	85	0	85	0	0	0	0	15	85
2	0	95	0	95	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	5	95
1	0	85	0	85	0	0	0	0	15	85
1	0	80	0	80	0	0	0	0	20	80
2	0	80	5	85	0	0	0	0	15	85
2	0	85	0	85	0	0	0	0	15	85
2	0	80	0	80	0	0	0	0	20	80
1	0	80	0	80	0	0	0	0	20	80
1	0	75	0	75	0	0	0	0	25	75
1	0	75	0	75	0	0	0	0	25	75
2	0	75	0	75	0	0	0	0	25	75
2	0	75	0	75	0	0	0	0	25	75
2	0	75	0	75	0	0	0	0	25	75
1	0	85	0	85	0	0	0	0	15	85
1	0	80	0	80	0	0	0	0	20	80
1	0	85	0	85	0	0	0	0	15	85
2	0	90	0	90	0	0	0	0	10	90
2	0	85	0	85	0	0	0	0	15	85
2	0	85	0	85	0	0	0	0	15	85
2	0	85	0	85	0	0	0	0	15	85
2	0	90	0	90	0	0	0	0	10	90
2	0	80	0	80	0	0	0	0	20	80
Average		**81.2**	**2.0**	**83.2**	**0.0**	**0.0**	**0.0**	**0.0**	**17.0**	**83.2**

Chain Valley Bay

Transect E1										Sampled 10 June 2023
			Seagrasses			Algae				
Long=1	Fouling	*Zostera*	*Halophila*	Total	*Codium*	*Cystophyllum*	% algae	Total	% Bare	Total
Short=2	0,1,2	% cover	% cover	seagrasses	% cover	% cover	Filamentous	Algae	Ground	Cover
2	1	60	0	60	0	5	0	5	35	65
2	1	75	5	80	0	0	0	0	20	80
2	1	90	0	90	0	5	0	5	5	95
2	1	85	0	85	0	0	0	0	15	85
2	1	90	0	90	0	0	0	0	10	90
2	1	75	0	75	0	15	0	15	10	90
2	1	85	0	85	0	0	0	0	15	85
2	1	50	0	50	0	30	0	30	20	80
2	1	85	0	85	0	0	0	0	15	85
2	1	85	0	85	0	0	0	0	15	85
2	1	85	0	85	0	0	0	0	15	85
2	1	80	0	80	0	0	0	0	20	80
2	1	90	0	90	0	0	0	0	10	90
2	1	95	0	95	0	0	0	0	5	95
2	1	75	0	75	0	5	0	5	20	80
2	1	80	0	80	0	0	5	5	15	85
2	1	85	0	85	0	0	0	0	15	85
2	1	75	0	75	0	5	0	5	20	80
2	1	75	0	75	0	5	0	5	20	80
2	1	90	0	90	0	5	0	5	5	95
2	1	95	0	95	0	5	0	5	0	100
2	1	90	0	90	0	0	0	0	10	90
2	1	80	5	85	0	5	0	5	10	90
2	1	70	0	70	0	10	0	10	20	80
2	1	75	0	75	0	5	0	5	20	80
2	1	85	0	85	0	0	5	5	10	90
2	1	90	0	90	0	0	0	0	10	90
2	1	80	0	80	0	10	0	10	10	90
2	1	70	0	70	0	20	0	20	10	90
2	1	85	0	85	0	0	10	10	5	95
2	1	90	0	90	0	0	5	5	5	95
2	1	75	0	75	0	25	0	25	0	100
2	1	85	0	85	0	15	0	15	0	100
2	1	85	0	85	0	10	5	15	0	100
2	1	75	5	80	0	5	0	5	15	85
2	1	75	5	80	0	0	5	5	15	85
2	1	73	2	75	0	20	0	20	5	95
2	1	85	0	85	0	5	0	5	10	90
2	1	80	0	80	0	20	0	20	0	100
2	1	75	0	75	0	5	0	5	20	80
2	1	90	0	90	0	0	0	0	10	90
2	1	75	0	75	0	15	0	15	10	90
2	1	85	0	85	0	5	0	5	10	90
2	1	95	0	95	0	5	0	5	0	100
2	1	95	0	95	0	0	0	0	5	95
2	1	90	0	90	0	5	0	5	5	95
2	1	85	0	85	0	10	0	10	5	95
2	1	90	0	90	0	5	0	5	5	95
2	1	80	0	80	0	10	0	10	10	90
2	1	90	0	90	0	5	0	5	5	95
2	1	98	0	98	0	0	0	0	2	98
2	1	98	0	98	0	0	0	0	2	98
2	1	98	0	98	0	2	0	2	0	100
2	1	85	0	85	0	10	0	10	5	95
2	1	98	0	98	0	0	0	0	2	98
2	1	95	0	95	0	5	0	5	0	100
2	1	95	0	95	0	5	0	5	0	100
2	1	90	0	90	0	10	0	10	0	100
2	1	85	0	85	0	15	0	15	0	100
2	1	90	0	90	0	0	0	0	10	90
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	95	0	95	0	0	0	0	5	95
2	1	80	0	80	0	0	0	0	20	80
2	1	80	0	80	0	5	0	5	15	85
2	1	100	0	100	0	0	0	0	0	100
2	1	95	2	97	0	0	0	0	3	97
2	1	95	0	95	0	0	0	0	5	95
Average		**85.0**	**0.4**	**85.4**	**0.0**	**5.1**	**0.5**	**5.6**	**9.0**	**91.0**

Transect E2 Sampled 10 June 2023

		Seagrasses			Algae					
Long=1	Fouling	*Zostera*	*Halophila*	Total	*Codium*	*Cystophyllum*	% algae	Total	% Bare	Total
Short=2	0,1,2	% cover	% cover	seagrasses	% cover	% cover	Filamentous	Algae	Ground	Cover
2	1	55	0	55	0	0	0	0	45	55
2	1	50	0	50	0	0	0	0	50	50
2	1	65	0	65	0	5	0	5	30	70
2	1	80	0	80	0	10	0	10	10	90
2	1	75	0	75	0	5	0	5	20	80
2	1	90	0	90	0	5	0	5	5	95
2	1	75	5	85	0	5	0	5	10	90
2	1	70	10	80	0	5	0	5	15	85
2	1	80	5	85	0	0	0	0	15	85
2	1	80	5	85	0	5	0	5	10	90
2	1	80	5	85	0	5	0	5	10	90
2	1	75	10	85	0	0	0	0	15	85
2	1	80	5	85	0	5	0	5	10	90
2	1	70	5	75	0	5	0	5	20	80
2	1	80	0	80	0	10	0	10	10	90
2	1	10	0	10	0	0	90	90	0	100
2	1	0	0	0	0	0	100	100	0	100
2	1	0	0	0	0	0	100	100	0	100
2	1	95	0	95	0	0	0	0	5	95
2	1	85	0	85	0	5	0	5	10	90
2	1	85	2	87	0	5	3	8	5	95
2	1	85	10	95	0	0	5	5	0	100
2	1	85	0	85	0	0	15	15	0	100
2	1	95	0	95	0	5	0	5	0	100
2	1	90	5	95	0	0	5	5	0	100
2	1	80	5	85	0	10	0	10	5	95
2	1	95	0	95	0	5	0	5	0	100
2	1	90	0	90	0	10	0	10	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	90	0	90	0	5	5	10	0	100
2	1	95	0	95	0	5	0	5	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	90	0	90	0	5	0	5	5	95
2	1	95	0	95	0	5	0	5	0	100
2	1	90	5	95	0	5	0	5	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	95	0	95	0	5	0	5	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	95	0	95	0	5	0	5	0	100
2	1	95	0	95	0	0	5	5	0	100
2	1	95	5	100	0	0	0	0	0	100
2	1	95	5	100	0	0	0	0	0	100
2	1	93	2	95	0	0	0	0	5	95
2	1	95	0	95	0	0	0	0	5	95
2	1	98	2	100	0	0	0	0	0	100
2	1	93	2	95	0	5	0	5	0	100
2	1	95	5	100	0	0	0	0	0	100
2	1	95	5	100	0	0	0	0	0	100
2	1	95	0	95	0	0	0	0	5	95
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	95	0	95	0	5	0	5	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	95	0	95	0	0	0	0	5	95
2	1	100	0	100	0	0	0	0	0	100
2	1	85	5	90	0	5	0	5	5	95
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	95	0	95	0	0	0	0	5	95
2	1	95	0	95	0	0	0	0	5	95
2	1	95	0	95	0	5	0	5	0	100
2	1	90	0	90	0	5	0	5	5	95
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	2	90	0	90	0	0	10	10	0	100
2	2	80	0	80	0	0	20	20	0	100
Average		**85.6**	**1.6**	**87.2**	**0.0**	**2.4**	**5.3**	**7.7**	**5.1**	**94.9**

Transect E3 Sampled 10 June 2023

		Seagrasses			Algae					
Long=1	Fouling	*Zostera*	*Halophila*	Total	*Codium*	*Cystophyllum*	% algae	Total	% Bare	Total
Short=2	0,1,2	% cover	% cover	seagrasses	% cover	% cover	Filamentous	Algae	Ground	Cover
1	1	90	0	90	0	0	0	0	10	90
1	1	80	0	80	0	0	0	0	20	80
1	1	90	0	90	0	0	0	0	10	90
1	1	80	0	80	0	0	0	0	20	80
1	1	95	0	95	0	0	0	0	5	95
1	1	95	0	95	0	0	0	0	5	95
1	1	85	0	85	0	0	0	0	15	85
1	1	80	0	80	0	0	0	0	20	80
1	1	90	0	90	0	0	0	0	10	90
1	1	95	0	95	0	0	0	0	5	95
1	1	100	0	100	0	0	0	0	0	100
1	1	95	0	95	0	0	0	0	5	95
1	1	90	0	90	0	0	0	0	10	90
1	1	90	0	90	0	0	0	0	10	90
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	95	0	95	0	0	0	0	5	95
1	1	100	0	100	0	0	0	0	0	100

Transect E4										Sampled 10 June 2023
		Seagrasses			Algae					
Long=1	Fouling	*Zostera*	*Halophila*	Total	*Codium*	*Cystophyllum*	% algae	Total	% Bare	Total
Short=2	0,1,2	% cover	% cover	seagrasses	% cover	% cover	Filamentous	Algae	Ground	Cover
1	1	85	0	85	0	15	0	15	0	100
1	1	85	0	85	0	2	0	2	13	87
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	95	0	95	0	0	0	0	5	95
1	1	100	0	100	0	0	0	0	0	100
1	1	95	0	95	0	0	0	0	5	95
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	95	0	95	0	5	0	5	0	100
1	1	98	2	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	95	0	95	0	0	0	0	5	95
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	85	0	85	0	0	0	0	15	85
1	1	90	0	90	0	5	0	5	5	95
1	1	90	0	90	0	5	0	5	5	95
1	1	100	0	100	0	0	0	0	0	100
2	0	80	0	80	0	0	5	5	15	85
2	1	90	0	90	0	0	0	0	10	90
2	1	80	0	80	0	0	0	0	20	80
2	1	70	0	70	0	0	0	0	30	70
2	1	45	0	45	0	40	0	40	15	85
2	1	85	0	85	0	10	0	10	5	95
2	1	80	0	80	0	5	0	5	15	85
2	1	90	0	90	0	0	0	0	10	90
2	1	95	0	95	0	0	0	0	5	95
2	1	95	0	95	0	5	0	5	0	100
2	1	90	0	90	0	5	0	5	5	95
2	1	85	5	90	0	0	0	0	10	90
2	1	90	0	90	0	0	0	0	10	90
2	1	95	0	95	0	0	0	0	5	95
2	1	95	0	95	0	0	0	0	5	95
2	1	90	0	90	0	0	0	0	10	90
2	1	80	0	80	0	5	0	5	15	85
2	1	85	0	85	0	15	0	15	0	100
2	1	95	0	95	0	0	0	0	5	95
2	1	95	0	95	0	5	0	5	0	100
2	1	95	0	95	0	0	0	0	5	95
2	1	98	2	100	0	0	0	0	0	100
2	1	93	0	93	0	5	0	5	2	98
2	1	95	0	95	0	0	0	0	5	95
2	1	70	0	70	0	5	0	5	25	75
2	1	90	0	90	0	0	0	0	10	90
2	1	80	0	80	0	5	0	5	15	85
2	1	95	0	95	0	0	0	0	5	95
2	1	95	0	95	0	0	0	0	5	95
2	1	95	0	95	0	0	0	0	5	95
2	1	72	3	75	0	20	0	20	5	95
2	1	90	5	95	0	0	0	0	5	95
2	1	100	0	100	0	0	0	0	0	100
2	1	95	5	100	0	0	0	0	0	100
2	1	95	5	100	0	0	0	0	0	100
2	1	90	5	95	0	0	0	0	5	95
2	1	85	10	95	0	0	0	0	5	95
2	1	85	10	95	0	0	0	0	5	95
2	1	75	5	80	0	15	0	15	5	95
2	1	100	0	100	0	0	0	0	0	100
2	1	85	0	85	0	0	0	0	15	85
2	1	80	15	95	0	0	0	0	5	95
2	1	80	10	90	0	5	0	5	5	95
2	1	95	5	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	2	80	0	80	0	0	0	0	20	80
Average		**90.2**	**1.3**	**91.5**	**0.0**	**2.6**	**0.1**	**2.7**	**5.8**	**94.2**

Transect L1 Sampled 10 June 2023

		Seagrasses			Algae					
Long=1 Short=2	Fouling 0,1,2	*Zostera* % cover	*Halophila* % cover	Total Seagrasses	*Codium* % cover	*Cystophyllum* % cover	% algae Filamentous	Total Algae	% Bare Ground	Total Cover
1	1	80	0	80	0	0	0	0	20	80
1	1	65	0	65	0	15	0	15	20	80
1	1	40	0	40	0	5	0	5	65	45
1	1	40	0	40	0	5	0	5	55	45
1	1	60	0	60	0	0	0	0	40	60
1	2	80	0	80	0	0	0	0	20	80
1	1	85	0	85	0	5	0	5	10	90
1	2	95	0	95	0	5	0	5	0	100
1	2	95	0	95	0	0	0	0	5	95
1	2	100	0	100	0	0	0	0	0	100
1	2	100	0	100	0	0	0	0	0	100
1	2	100	0	100	0	0	0	0	0	100
1	2	100	0	100	0	0	0	0	0	100
1	2	100	0	100	0	0	0	0	0	100
1	2	100	0	100	0	0	0	0	0	100
1	2	100	0	100	0	0	0	0	0	100
1	2	95	0	95	0	0	0	0	5	95
1	2	100	0	100	0	0	0	0	0	100
1	2	95	0	95	0	0	0	0	5	95
1	2	90	0	90	0	0	0	0	10	90
1	2	100	0	100	0	0	0	0	0	100
1	2	100	0	100	0	0	0	0	0	100
1	2	100	0	100	0	0	0	0	0	100
1	2	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	95	0	95	0	0	0	0	5	95
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	95	5	100	0	0	0	0	0	100
1	1	90	5	95	0	0	0	0	5	95
1	1	90	5	95	0	0	0	0	5	95
1	1	95	5	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	95	5	100	0	0	0	0	0	100
1	1	90	0	90	0	0	0	0	10	90
1	1	85	5	90	0	0	0	0	10	90
1	1	80	10	90	0	0	0	0	10	90
1	1	80	5	85	0	0	0	0	15	85
1	1	85	5	90	0	0	0	0	10	90
1	1	85	10	95	0	0	0	0	5	95
1	1	95	0	95	0	0	0	0	5	95
1	1	90	5	95	0	0	0	0	5	95
1	1	95	0	95	0	0	0	0	5	95
1	1	100	0	100	0	0	0	0	0	100
1	1	90	0	90	0	0	0	0	10	90
1	1	85	0	85	0	0	0	0	15	85
1	1	100	0	100	0	0	0	0	0	100
1	1	98	0	98	0	0	0	0	2	98
1	1	100	0	100	0	0	0	0	0	100
1	1	95	0	95	0	0	0	0	5	95
1	1	100	0	100	0	0	0	0	0	100
1	1	80	0	80	0	20	0	20	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	95	0	95	0	0	0	0	5	95
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	95	0	95	0	0	0	0	0	95
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
Average		**92.7**	**1.0**	**93.6**	**0.0**	**0.8**	**0.0**	**0.8**	**5.6**	**94.5**

Transect E5										Sampled 10 June 2023
		Seagrasses			Algae					
Long=1	Fouling	*Zostera*	*Halophila*	Total	*Codium*	*Cystophyllum*	% algae	Total	% Bare	Total
Short=2	0,1,2	% cover	% cover	seagrasses	% cover	% cover	Filamentous	Algae	Ground	Cover
1	1	70	0	70	0	0	0	0	30	70
1	1	95	0	95	0	0	0	0	5	95
1	1	90	0	90	0	5	2	7	3	97
1	1	95	0	95	0	0	5	5	0	100
1	1	95	0	95	0	0	0	0	5	95
1	1	90	0	90	0	0	0	0	10	90
1	1	95	0	95	0	0	0	0	5	95
1	1	95	0	95	0	5	0	5	0	100
1	1	90	0	90	0	0	0	0	10	90
1	1	95	0	95	0	0	0	0	5	95
1	1	98	0	98	0	0	0	0	2	98
1	1	98	0	98	0	0	2	2	0	100
1	1	98	0	98	0	0	0	0	2	98
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	95	0	95	0	0	0	0	5	95
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	98	0	98	0	0	0	0	2	98
1	1	98	0	98	0	0	0	0	2	98
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	95	0	95	0	0	0	0	5	95
1	1	100	0	100	0	0	0	0	0	100
1	1	95	0	95	0	0	0	0	5	95
1	1	95	0	95	0	0	0	0	5	95
1	1	95	0	95	0	0	0	0	5	95
1	1	100	0	100	0	0	0	0	0	100
1	1	90	0	90	0	0	0	0	10	90
1	1	85	0	85	0	0	0	0	15	85
1	1	90	0	90	0	0	0	0	10	90
1	1	95	0	95	0	0	0	0	5	95
1	1	100	0	100	0	0	0	0	0	100
1	1	98	0	98	0	0	0	0	2	98
1	1	95	0	95	0	0	0	0	5	95
1	1	98	0	98	0	0	0	0	2	98
1	1	96	0	96	0	0	4	4	0	100
1	1	100	0	100	0	0	0	0	0	100
2	1	65	0	65	0	5	0	5	30	70
2	1	100	0	100	0	0	0	0	0	100
2	1	85	5	90	0	5	0	5	5	95
2	1	96	0	96	0	0	2	2	2	98
2	1	100	0	100	0	0	0	0	0	100
2	1	95	0	95	0	0	0	0	5	95
2	1	95	0	95	0	0	0	0	5	95
2	1	95	0	95	0	0	0	0	5	95
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	93	2	95	0	0	0	0	5	95
Average		**96.3**	**0.1**	**96.4**	**0.0**	**0.3**	**0.2**	**0.5**	**3.1**	**96.9**

Transect E6 Sampled 10 June 2023

		Seagrasses			Algae					
Long=1	Fouling	*Zostera*	*Halophila*	Total	*Codium*	*Cystophyllum*	% algae	Total	% Bare	Total
Short=2	0,1,2	% cover	% cover	seagrasses	% cover	% cover	Filamentous	Algae	Ground	Cover
1	2	40	0	40	0	0	0	0	60	40
1	2	40	0	40	0	0	0	0	60	40
1	2	60	0	60	0	0	0	0	40	60
1	2	50	0	50	0	0	0	0	50	50
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	5	5	0	0	0	0	95	5
1	2	70	5	75	0	0	0	0	25	75
1	2	80	5	85	0	0	0	0	15	85
1	2	83	2	85	0	0	0	0	15	85
1	2	80	0	80	0	0	0	0	20	80
1	2	80	0	80	0	0	0	0	20	80
1	2	45	0	45	0	0	0	0	55	45
1	2	80	0	80	0	0	0	0	20	80
1	2	71	4	75	0	0	0	0	25	75
1	2	60	4	64	0	0	0	0	36	64
1	1	95	0	95	0	0	0	0	5	95
1	1	75	0	75	0	0	0	0	25	75
1	1	85	0	85	0	0	0	0	15	85
1	1	85	5	90	0	0	0	0	10	90
1	1	85	5	90	0	0	0	0	10	90
1	1	90	0	90	0	0	0	0	10	90
1	1	50	0	50	0	0	0	0	50	50
1	2	50	0	50	0	0	0	0	50	50
1	1	90	0	90	0	0	0	0	10	90
1	1	95	0	95	0	0	0	0	5	95
1	1	90	5	95	0	0	0	0	5	95
1	2	90	0	90	0	0	0	0	10	90
1	2	80	0	80	0	0	0	0	20	80
1	1	70	10	80	0	0	0	0	20	80
1	2	80	0	80	0	0	0	0	20	80
1	1	70	10	80	0	0	0	0	20	80
1	2	70	10	80	0	0	0	0	20	80
1	1	70	10	80	0	0	0	0	20	80
1	1	90	0	90	0	0	0	0	10	90
1	1	90	2	92	0	0	0	0	8	92
1	1	80	10	90	0	0	0	0	20	90
1	1	70	10	80	0	0	0	0	20	80
1	1	80	2	82	0	0	0	0	18	82
1	2	80	5	85	0	0	0	0	15	85
1	1	75	10	85	0	0	0	0	15	85
1	1	60	15	75	0	0	0	0	25	75
1	1	80	5	85	0	0	0	0	15	85
1	1	50	10	60	0	0	0	0	40	60
1	1	60	10	70	0	0	0	0	30	70
1	1	60	0	60	0	0	0	0	40	60
1	1	40	10	50	0	0	0	0	50	50
1	1	80	15	95	0	0	0	0	5	95
1	1	90	5	95	0	0	0	0	5	95
1	1	50	15	65	0	0	0	0	35	65
1	1	75	5	80	0	0	0	0	20	80
1	1	75	10	85	0	0	0	0	15	85
1	1	90	0	90	0	5	0	5	5	95
1	1	80	0	80	0	0	0	0	20	80
1	1	80	5	85	0	0	0	0	15	85
1	2	95	0	95	0	0	0	0	5	95
1	1	80	5	85	0	0	0	0	15	85
1	1	90	5	95	0	0	0	0	5	95
1	1	95	0	95	0	0	0	0	5	95
1	2	80	10	90	0	0	0	0	10	90
2	1	40	20	60	0	0	0	0	40	60
2	1	65	25	90	0	0	0	0	10	90
2	1	85	10	95	0	0	0	0	5	95
1	1	80	5	85	0	0	0	0	15	85
1	1	20	10	30	0	0	0	0	70	30
1	1	95	5	100	0	0	0	0	0	100
1	1	50	15	65	0	0	0	0	35	65
1	1	85	15	100	0	0	0	0	0	100
Average		**69.9**	**5.1**	**75.0**	**0.0**	**0.1**	**0.0**	**0.1**	**22.1**	**75.1**

Transect E8 Sampled 10 June 2023

		Seagrasses			Algae					
Long=1 Short=2	Fouling 0,1,2	*Zostera* % cover	*Halophila* % cover	Total Seagrasses	*Codium* % cover	*Cystophyllum* % cover	% algae Filamentous	Total Algae	% Bare Ground	Total Cover
1	0	90	0	90	0	0	0	0	10	90
1	0	40	5	45	0	0	0	0	55	45
1	0	55	5	60	0	0	0	0	40	60
1	1	55	5	60	0	0	0	0	40	60
2	1	80	0	80	0	0	0	0	20	80
2	1	80	10	90	0	0	0	0	10	90
2	1	80	5	85	0	0	0	0	15	85
2	1	80	10	90	0	0	0	0	10	90
2	0	80	0	80	0	0	0	0	20	80
2	1	90	0	90	0	0	0	0	10	90
2	1	80	10	90	0	0	0	0	10	90
1	1	90	0	90	0	0	0	0	10	90
1	1	78	2	80	0	0	0	0	20	80
1	1	85	0	85	0	0	0	0	15	85
1	1	85	0	85	0	0	0	0	15	85
1	1	95	0	95	0	0	0	0	5	95
2	1	65	5	70	0	0	0	0	30	70
2	1	70	0	70	0	0	0	0	30	70
2	1	75	0	75	0	0	0	0	25	75
2	1	80	0	80	0	0	0	0	20	80
2	1	90	0	90	0	0	0	0	10	90
2	1	88	2	90	0	0	0	0	10	90
2	1	95	0	95	0	0	0	0	5	95
2	1	90	5	95	0	0	0	0	5	95
1	1	85	5	90	0	0	0	0	10	90
1	1	85	5	90	0	0	0	0	10	90
1	1	90	0	90	0	0	0	0	10	90
1	1	85	5	90	0	0	0	0	10	90
1	1	95	0	95	0	0	0	0	5	95
1	1	95	0	95	0	0	0	0	5	95
1	1	90	0	90	0	0	0	0	10	90
2	1	85	0	85	0	0	0	0	15	85
2	1	85	0	85	0	0	0	0	15	85
2	1	95	0	95	0	0	0	0	5	95
2	1	95	0	95	0	0	0	0	5	95
2	1	98	0	98	0	0	0	0	2	98
2	1	95	0	95	0	0	0	0	5	95
2	1	90	0	90	0	0	0	0	10	90
2	1	95	0	95	0	0	0	0	5	95
2	1	90	0	90	0	0	0	0	10	90
2	1	85	3	88	0	0	0	0	12	88
2	0	80	5	85	0	0	0	0	15	85
2	1	90	0	90	0	0	0	0	10	90
2	1	95	0	95	0	0	0	0	5	95
2	0	90	5	95	0	0	0	0	5	95
2	0	90	0	90	0	0	0	0	10	90
2	0	90	0	90	0	0	0	0	10	90
1	0	90	0	90	0	0	0	0	10	90
2	0	90	0	90	0	0	0	0	10	90
2	0	90	0	90	0	0	0	0	10	90
2	0	85	0	85	0	0	0	0	15	85
2	0	85	0	85	0	0	0	0	15	85
2	0	80	5	85	0	0	0	0	15	85
2	0	95	0	95	0	0	0	0	5	95
2	0	90	0	90	0	0	0	0	10	90
2	0	90	0	90	0	0	0	0	10	90
2	0	90	0	90	0	0	0	0	10	90
2	0	95	0	95	0	0	0	0	5	95
2	0	95	0	95	0	5	0	5	0	100
2	0	95	0	95	0	0	0	0	5	95
2	0	85	5	90	0	0	0	0	10	90
2	0	90	0	90	0	0	0	0	10	90
2	0	90	0	90	0	0	0	0	10	90
2	0	90	0	90	0	0	0	0	10	90
2	0	85	0	85	0	0	0	0	15	85
2	0	90	0	90	0	0	0	0	10	90
2	0	90	0	90	0	0	0	0	10	90
2	0	90	0	90	0	0	0	0	10	90
Average		**86.0**	**1.5**	**87.5**	**0.0**	**0.1**	**0.0**	**0.1**	**12.4**	**87.6**

Transect E9 Sampled 10 June 2023

		Seagrasses			Algae					
Long=1 Short=2	Fouling 0,1,2	*Zostera* % cover	*Halophila* % cover	Total Seagrasses	*Codium* % cover	*Cystophyllum* % cover	% algae Filamentous	Total Algae	% Bare Ground	Total Cover
2	0	95	0	95	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	5	95
2	0	90	0	90	0	0	0	0	10	90
2	0	95	0	95	0	0	0	0	5	95
2	0	93	2	95	0	0	0	0	5	95
2	0	90	5	95	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	5	95
2	0	80	10	90	0	0	0	0	10	90
2	0	80	5	85	0	0	0	0	15	85
2	0	90	0	90	0	0	0	0	10	90
2	0	95	0	95	0	0	0	0	5	95
2	0	85	5	90	0	0	0	0	10	90
2	0	90	0	90	0	0	0	0	10	90
2	0	90	0	90	0	0	0	0	10	90
2	0	85	0	85	0	0	0	0	15	85
2	0	95	0	95	0	0	0	0	5	95
2	0	88	2	90	0	0	0	0	10	90
2	0	85	5	90	0	0	0	0	10	90
2	0	80	0	80	0	20	0	20	0	100
2	0	95	0	95	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	5	95
2	0	98	2	100	0	0	0	0	0	100
2	0	95	0	95	0	0	0	0	5	95
2	0	85	0	85	0	0	0	0	15	85
2	0	85	0	85	0	0	0	0	15	85
2	0	90	0	90	0	0	0	0	10	90
2	0	90	0	90	0	0	0	0	10	90
2	0	100	0	100	0	0	0	0	0	100
1	0	95	0	95	0	0	0	0	5	95
1	0	95	0	95	0	0	0	0	5	95
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	95	0	95	0	0	0	0	5	95
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	98	0	98	0	0	0	0	0	98
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
Average		**95.7**	**0.5**	**96.2**	**0.0**	**0.3**	**0.0**	**0.3**	**3.5**	**96.5**

Transect E10 Sampled 10 June 2023

		Seagrasses			Algae					
Long=1	Fouling	*Zostera*	*Halophila*	Total	*Codium*	*Cystophyllum*	% algae	Total	% Bare	Total
Short=2	0,1,2	% cover	% cover	seagrasses	% cover	% cover	Filamentous	Algae	Ground	Cover
0	0	0	0	0	0	90	0	90	10	90
0	0	0	0	0	0	0	95	95	5	95
2	1	85	15	100	0	0	0	0	0	100
2	1	15	15	30	0	0	40	40	30	70
0	0	0	0	0	0	0	100	100	0	100
0	0	0	0	0	0	0	100	100	0	100
0	0	0	0	0	0	0	100	100	0	100
2	1	75	5	80	0	0	10	10	10	90
2	2	98	0	98	0	0	0	0	2	98
2	2	95	0	95	0	0	5	5	0	100
2	2	95	0	95	0	0	0	0	5	95
2	2	100	0	100	0	0	0	0	0	100
2	2	95	0	95	0	0	0	0	5	95
2	2	100	0	100	0	0	0	0	0	100
2	2	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	95	0	95	0	0	0	0	5	95
2	1	100	0	100	0	0	0	0	0	100
2	1	95	0	95	0	0	0	0	5	95
2	1	90	0	90	0	0	0	0	10	90
2	1	100	0	100	0	0	0	0	0	100
2	1	95	0	95	0	0	5	5	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	90	0	90	0	0	0	0	10	90
2	1	95	0	95	0	0	0	0	5	95
2	1	93	0	93	0	0	4	4	3	97
2	1	90	0	90	0	0	0	0	10	90
2	1	90	0	90	0	0	0	0	10	90
2	1	100	0	100	0	0	0	0	0	100
2	1	90	0	90	0	0	0	0	10	90
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	95	0	95	0	0	0	0	5	95
2	1	90	0	90	0	10	0	10	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	98	0	98	0	0	0	0	2	98
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	95	0	95	0	0	0	0	5	95
2	1	75	20	95	0	0	0	0	5	95
2	2	0	95	95	0	0	0	0	5	95
2	1	85	0	85	0	0	0	0	15	85
2	1	95	0	95	0	0	0	0	5	95
2	1	100	0	100	0	0	0	0	0	100
2	1	95	0	95	0	0	0	0	5	95
2	1	95	0	95	0	0	0	0	5	95
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
Average		**86.8**	**2.2**	**89.0**	**0.0**	**1.5**	**6.8**	**8.2**	**2.8**	**97.3**

Transect E11 Sampled 10 June 2023

		Seagrasses			Algae					
Long=1	Fouling	*Zostera*	*Halophila*	Total	*Codium*	*Cystophyllum*	% algae	Total	% Bare	Total
Short=2	0,1,2	% cover	% cover	Seagrasses	% cover	% cover	Filamentous	Algae	Ground	Cover
1	1	100	0	100	0	0	0	0	0	100
1	1	80	0	80	0	0	0	0	20	80
1	1	80	0	80	0	0	0	0	20	80
1	1	90	0	90	0	0	0	0	10	90
1	1	70	0	70	0	0	0	0	30	70
1	1	90	0	90	0	0	0	0	10	90
1	1	85	0	85	0	0	0	0	15	85
1	1	95	0	95	0	0	0	0	5	95
1	1	45	0	45	0	0	0	0	55	45
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	95	0	95	0	0	0	0	5	95
1	1	100	0	100	0	0	0	0	0	100
1	1	85	5	90	0	0	0	0	5	90
1	1	95	0	95	0	0	0	0	5	95
1	1	90	0	90	0	0	0	0	10	90
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	90	0	90	0	0	0	0	10	90
1	1	95	0	95	0	0	0	0	5	95
1	1	95	0	95	0	0	0	0	5	95
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	95	0	95	0	5	0	5	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	98	0	98	0	0	0	0	2	98
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	95	0	95	0	5	0	5	0	100
1	1	100	0	100	0	0	0	0

Transect E12 Sampled 10 June 2023

		Seagrasses			Algae					
Long=1	Fouling	*Zostera*	*Halophila*	Total	*Codium*	*Cystophyllum*	% algae	Total	% Bare	Total
Short=2	0,1,2	% cover	% cover	Seagrasses	% cover	% cover	Filamentous	Algae	Ground	Cover
1	0	20	5	25	0	0	0	0	75	25
1	0	20	5	25	0	0	0	0	75	25
1	1	88	2	90	0	0	0	0	10	90
1	1	90	0	90	0	0	0	0	10	90
1	1	80	0	80	0	0	0	0	20	80
1	1	85	0	85	0	0	0	0	15	85
1	1	80	5	85	0	0	0	0	15	85
2	1	95	0	95	0	0	0	0	5	95
2	1	93	2	95	0	0	0	0	5	95
2	1	95	5	100	0	0	0	0	0	100
2	1	85	5	90	0	0	0	0	10	90
2	1	100	0	100	0	0	0	0	0	100
2	1	95	0	95	0	0	0	0	5	95
2	1	98	0	98	0	0	0	0	2	98
2	1	95	0	95	0	0	0	0	5	95
2	1	95	0	95	0	0	0	0	5	95
2	1	95	0	95	0	0	0	0	5	95
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	85	5	90	0	0	0	0	10	90
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	95	0	95	0	0	0	0	5	95
2	1	90	0	90	0	0	0	0	10	90
2	1	90	0	90	0	0	0	0	10	90
2	1	95	0	95	0	0	0	0	5	95
2	1	95	0	95	0	0	0	0	5	95
2	1	95	0	95	0	0	5	5	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	95	0	95	0	0	0	0	5	95
2	1	95	0	95	0	0	0	0	5	95
2	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	95	0	95	0	0	0	0	5	95
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	5	5	0	100
2	1	85	0	85	0	0	15	15	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	95	0	95	0	0	0	0	5	95
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
Average		**94.3**	**0.5**	**94.8**	**0.0**	**0.0**	**0.4**	**0.4**	**4.8**	**95.2**

Transect E13 Sampled 10 June 2023

		Seagrasses			Algae					
Long=1 Short=2	Fouling 0,1,2	*Zostera* % cover	*Halophila* % cover	Total Seagrasses	*Codium* % cover	*Cystophyllum* % cover	% algae Filamentous	Total Algae	% Bare Ground	Total Cover
1	0	100	0	100	0	0	0	0	0	100

Transect E14 Sampled 10 June 2023

		Seagrasses			Algae					
Long=1 Short=2	Fouling 0,1,2	*Zostera* % cover	*Halophila* % cover	Total Seagrasses	*Codium* % cover	*Cystophyllum* % cover	% algae Filamentous	Total Algae	% Bare Ground	Total Cover
1	1	100	0	100	0	0	0	0	0	100

Transect E15 Sampled 10 June 2023

		Seagrasses			Algae					
Long=1 Short=2	Fouling 0,1,2	*Zostera* % cover	*Halophila* % cover	Total Seagrasses	*Codium* % cover	*Cystophyllum* % cover	% algae Filamentous	Total Algae	% Bare Ground	Total Cover
1	1	100	0	100	0	0	0	0	0	100
1	1	95	0	95	0	0	0	0	5	95
1	1	95	0	95	0	0	0	0	5	95
1	1	75	10	85	0	0	0	0	15	85
1	1	85	5	90	0	0	0	0	10	90
1	1	75	5	80	0	0	0	0	20	80
1	1	90	5	95	0	0	0	0	5	95
1	1	95	0	95	0	0	0	0	5	95
1	1	95	0	95	0	0	0	0	5	95
1	1	100	0	100	0	0	0	0	0	100
1	1	95	5	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	95	0	95	0	0	0	0	5	95
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	95	0	95	0	0	0	0	5	95
1	1	95	0	95	0	0	0	0	5	95
1	1	95	0	95	0	0	0	0	5	95
1	1	90	0	90	0	0	0	0	10	90
1	1	85	0	85	0	0	0	0	15	85
1	1	85	0	85	0	5	0	5	10	90
1	1	75	0	75	0	0	0	0	25	75
1	1	50	0	50	0	0	0	0	50	50
1	1	45	5	50	0	0	0	0	50	50
2	1	85	0	85	0	0	0	0	15	85
2	1	70	0	70	0	0	0	0	30	70
1	1	40	10	50	0	0	0	0	50	50
2	1	25	0	25	0	0	0	0	75	25
2	1	70	0	70	0	0	0	0	30	70
2	0	70	0	70	0	0	0	0	30	70
2	0	70	5	75	0	0	0	0	25	75
2	1	70	0	70	0	0	0	0	30	70
2	1	70	0	70	0	0	0	0	30	70
1	1	65	0	65	0	0	0	0	35	65
1	1	95	0	95	0	0	0	0	5	95
1	1	90	0	90	0	0	0	0	10	90
1	1	95	0	95	0	0	0	0	5	95
1	1	95	0	95	0	0	0	0	5	95
1	1	95	0	95	0	0	0	0	5	95
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	90	0	90	0	0	0	0	10	90
1	1	100	0	100	0	0	0	0	0	100
1	1	95	0	95	0	0	0	0	5	95
1	1	100	0	100	0	0	0	0	0	100
1	1	90	0	90	0	0	0	0	10	90
1	1	90	0	90	0	0	0	0	10	90
1	1	100	0	100	0	0	0	0	0	100
1	1	95	0	95	0	5	0	5	0	100
1	1	95	0	95	0	5	0	5	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	95	0	95	0	0	0	0	5	95
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	90	0	90	0	0	0	0	10	90
1	1	90	0	90	0	0	0	0	10	90
Average		**88.9**	**0.7**	**89.6**	**0.0**	**0.2**	**0.0**	**0.2**	**10.1**	**89.9**

Transect E16 Sampled 10 June 2023

		Seagrasses			Algae					
Long=1 Short=2	Fouling 0,1,2	*Zostera* % cover	*Halophila* % cover	Total Seagrasses	*Codium* % cover	*Cystophyllum* % cover	% algae Filamentous	Total Algae	% Bare Ground	Total Cover
1	2	50	0	50	0	0	0	0	50	50
1	2	80	5	85	0	0	0	0	15	85
1	2	80	0	80	0	0	0	0	20	80
1	1	90	0	90	0	0	0	0	10	90
1	2	85	0	85	0	0	0	0	15	85
1	2	70	0	70	0	0	0	0	30	70
1	2	90	0	90	0	0	0	0	10	90
1	2	100	0	100	0	0	0	0	0	100
1	2	90	0	90	0	0	0	0	10	90
1	2	100	0	100	0	0	0	0	0	100
1	2	80	0	80	0	0	0	0	20	80
1	2	100	0	100	0	0	0	0	0	100
1	2	100	0	100	0	0	0	0	0	100
1	1	95	0	95	0	0	0	0	5	95
1	1	100	0	100	0	0	0	0	0	100
1	1	90	0	90	0	0	0	0	10	90
1	1	100	0	100	0	0	0	0	0	100
1	1	95	0	95	0	0	0	0	5	95
1	1	95	0	95	0	0	0	0	5	95
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	90	0	90	0	0	0	0	10	90
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	90	0	90	0	0	0	0	10	90
1	1	85	0	85	0	0	0	0	15	85
1	1	95	0	95	0	0	0	0	5	95
1	1	95	0	95	0	0	0	0	5	95
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	95	0	95	0	0	0	0	0	95
1	1	95	0	95	0	0	0	0	5	95
1	1	90	0	90	0	0	0	0	10	90
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	95	0	95	0	0	0	0	5	95
1	1	95	0	95	0	0	0	0	5	95
1	1	95	0	95	0	0	0	0	5	95
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	95	0	95	0	0	0	0	5	95
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	95	0	95	0	0	0	0	0	95
1	1	90	0	90	0	0	0	0	10	90
1	1	95	0	95	0	0	0	0	5	95
1	1	100	0	100	0	0	0	0	0	100
1	1	95	0	95	0	0	0	0	5	95
1	1	100	0	100	0	0	0	0	0	100
1	1	95	0	95	0	5	0	5	5	100
1	1	100	0	100	0	0	0	0	0	100
1	1	95	0	95	0	0	0	0	5	95
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
Average		**95.1**	**0.1**	**95.2**	**0.0**	**0.1**	**0.0**	**0.1**	**4.6**	**95.3**

Bardens Bay

Transect A1 Sampled 10 June 2023

		Seagrasses			Algae					
Long=1 Short=2	Fouling 0,1,2	*Zostera* % cover	*Halophila* % cover	Total Seagrasses	*Codium* % cover	*Cystophyllum* % cover	% algae Filamentous	Total Algae	% Bare Ground	Total Cover
2	1	75	0	75	0	5	0	5	20	80
2	1	95	0	95	0	5	0	5	0	100
2	1	80	0	80	0	10	0	10	10	90
2	1	70	0	70	0	15	0	15	15	85
2	1	85	0	85	0	0	0	0	15	85
2	1	60	0	60	0	40	0	40	0	100
2	1	75	0	75	0	10	0	10	15	85
2	1	90	0	90	0	10	0	10	0	100
2	1	85	0	85	0	10	0	10	5	95
2	1	40	5	45	0	5	0	5	50	50
2	1	45	5	50	0	10	0	10	40	60
2	1	50	10	60	0	15	0	15	25	75
1	1	95	0	95	0	0	0	0	5	95
2	1	80	5	85	0	5	0	5	10	90
2	1	60	10	70	0	15	0	15	15	85
2	1	85	5	90	0	0	0	0	10	90
2	1	75	10	85	0	0	0	0	15	85
2	1	70	5	75	0	15	0	15	10	90
2	1	75	5	80	0	10	0	10	10	90
2	1	85	0	85	0	5	0	5	10	90
2	1	70	5	75	0	10	0	10	15	85
2	1	70	5	75	0	5	0	5	20	80
2	1	70	5	75	0	5	0	5	20	80
2	1	50	10	60	0	25	0	25	15	85
2	1	80	5	85	0	0	0	0	15	85
2	1	95	0	95	0	0	0	0	5	95
2	1	90	0	90	0	5	0	5	5	95
2	1	90	0	90	0	5	0	5	5	95
2	1	70	5	75	0	10	0	10	15	85
2	1	75	5	80	0	5	0	5	15	85
2	1	83	2	85	0	10	0	10	5	95
2	1	95	0	95	0	0	0	0	5	95
2	1	95	0	95	0	0	0	0	5	95
2	1	90	0	90	0	0	0	0	10	90
2	1	90	0	90	0	5	0	5	5	95
2	1	80	10	90	0	0	0	0	10	90
2	1	50	5	55	0	5	0	5	40	60
2	1	30	5	35	0	10	0	10	55	45
2	1	5	0	5	0	20	0	20	75	25
2	1	50	0	50	0	15	0	15	35	65
2	1	50	30	80	0	15	0	15	5	95
2	1	5	15	20	25	15	0	40	40	60
2	1	60	5	65	0	15	0	15	20	80
2	1	60	0	60	0	20	0	20	20	80
2	1	40	0	40	0	10	0	10	50	50
2	1	20	0	20	0	10	0	10	70	30
2	1	50	0	50	0	20	0	20	30	70
2	1	75	0	75	0	10	0	10	15	85
2	1	75	0	75	0	10	0	10	15	85
2	1	80	0	80	0	10	0	10	10	90
2	1	75	5	80	0	5	0	5	15	85
2	1	75	0	75	0	15	0	15	10	90
2	1	80	0	80	0	10	0	10	10	90
2	1	70	5	75	0	10	0	10	20	85
2	1	70	0	70	0	5	0	5	25	75
2	1	80	0	80	0	10	0	10	10	90
2	1	70	0	70	0	15	0	15	15	85
2	1	70	0	70	0	20	0	20	10	90
2	1	70	0	70	0	25	0	25	5	95
2	1	90	0	90	0	5	0	5	5	95
2	1	80	0	80	0	10	0	10	10	90
2	1	80	0	80	0	5	0	5	15	85
2	1	80	0	80	0	10	0	10	10	90
2	1	85	0	85	0	10	0	10	5	95
2	1	90	0	90	0	5	0	5	5	95
2	1	100	0	100	0	0	0	0	0	100
2	1	95	0	95	0	0	0	0	5	95
2	1	90	0	90	0	5	0	5	5	95
Average		**71.6**	**2.7**	**74.3**	**0.4**	**9.1**	**0.0**	**9.5**	**16.3**	**83.8**

Transect A2 Sampled 10 June 2023

		Seagrasses			Algae					
Long=1 Short=2	Fouling 0,1,2	*Zostera* % cover	*Halophila* % cover	Total Seagrasses	*Codium* % cover	*Cystoseira* % cover	% algae Filamentous	Total Algae	% Bare Ground	Total Cover
1	1	100	0	100	0	0	0	0	0	100
1	1	65	0	65	0	30	0	30	5	95
1	1	90	0	90	0	5	0	5	5	95
1	1	95	0	95	0	5	0	5	0	100
1	1	95	0	95	0	0	0	0	5	95
1	1	95	0	95	0	0	0	0	5	95
1	1	100	0	100	0	0	0	0	0	100
1	1	85	0	85	0	15	0	15	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	75	0	75	0	25	0	25	0	100
1	1	85	0	85	0	10	0	10	5	95
1	1	85	0	85	0	15	0	15	0	100
1	1	90	0	90	0	5	0	5	5	95
1	1	95	0	95	0	0	0	0	5	95
1	1	90	0	90	0	0	0	0	10	90
1	1	65	0	65	0	25	0	25	10	90
1	1	85	0	85	0	15	0	15	0	100
1	1	90	0	90	0	10	0	10	0	100
2	1	60	10	70	0	5	0	5	25	75
2	1	75	5	80	0	5	0	5	15	85
2	1	70	5	75	0	10	0	10	15	85
2	1	80	0	80	0	10	0	10	10	90
2	1	70	5	75	0	10	0	10	15	85
2	1	68	2	70	0	5	0	5	25	75
2	1	75	0	75	0	10	0	10	15	85
2	1	80	0	80	0	0	0	0	20	80
2	1	75	0	75	0	5	0	5	20	80
2	1	95	0	95	0	5	0	5	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	90	0	90	0	5	0	5	5	95
2	1	90	0	90	0	5	0	5	5	95
2	1	75	0	75	0	20	0	20	5	95
2	1	90	0	90	0	5	0	5	5	95
2	1	90	0	90	0	5	0	5	5	95
2	1	85	5	90	0	5	0	5	5	95
2	1	100	0	100	0	0	0	0	0	100
2	1	90	5	95	0	0	0	0	5	95
2	1	80	5	85	0	5	0	5	10	90
2	1	95	0	95	0	0	0	0	5	95
2	1	90	0	90	0	5	0	5	5	95
2	1	85	0	85	0	5	0	5	10	90
2	1	80	5	85	0	5	0	5	10	90
2	1	65	5	70	0	5	0	5	25	75
2	1	55	10	65	0	0	0	0	35	65
2	1	75	0	75	0	5	0	5	20	80
2	1	85	0	85	0	0	0	0	15	85
2	1	75	0	75	0	10	0	10	15	85
2	1	75	0	75	0	15	0	15	10	90
2	1	90	0	90	0	5	0	5	5	95
2	1	93	0	93	0	2	0	2	5	95
2	1	65	0	65	0	20	0	20	15	85
2	1	90	0	90	0	10	0	10	0	100
2	1	85	0	85	0	10	0	10	5	95
2	1	90	0	90	0	5	0	5	5	95
2	1	90	0	90	0	10	0	10	0	100
2	1	73	2	75	0	15	0	15	10	90
2	1	75	0	75	0	15	0	15	10	90
2	1	90	0	90	0	0	0	0	10	90
2	1	80	0	80	0	10	0	10	10	90
2	1	75	0	75	0	15	0	15	10	90
2	1	90	0	90	0	5	0	5	5	95
2	1	85	0	85	0	10	0	10	5	95
2	1	65	0	65	0	20	0	20	15	85
2	1	60	0	60	0	20	0	20	20	80
2	1	30	0	30	0	50	0	50	20	80
2	1	65	0	65	0	20	0	20	15	85
2	1	75	0	75	0	10	0	10	15	85
2	1	75	0	75	0	10	0	10	15	85
Average		**81.5**	**0.9**	**82.5**	**0.0**	**8.6**	**0.0**	**8.6**	**8.9**	**91.1**

Transect A3 Sampled 10 June 2023

		Seagrasses			Algae					
Long=1 Short=2	Fouling 0,1,2	*Zostera* % cover	*Halophila* % cover	Total Seagrasses	*Codium* % cover	*Cystoseira* % cover	% algae Filamentous	Total Algae	% Bare Ground	Total Cover
1	1	100	0	100	0	0	0	0	0	100
1	1	95	0	95	0	0	0	0	5	95
1	1	50	0	50	0	0	0	0	50	50
1	1	90	0	90	0	0	0	0	10	90
1	1	90	0	90	0	0	0	0	10	90
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	50	0	50	0	50	0	50	0	100
1	1	80	0	80	0	20	0	20	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	98	0	98	0	0	0	0	2	98
1	1	95	0	95	0	0	0	0	5	95
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	90	0	90	0	5	0	5	5	95
1	1	95	0	95	0	0	0	0	5	95
1	1	90	0	90	0	10	0	10	0	100
1	1	98	0	98	0	0	0	0	2	98
1	1	90	0	90	0	5	0	5	5	95
1	1	80	0	80	0	10	0	10	10	90
1	1	85	0	85	0	10	0	10	5	95
1	1	90	0	90	0	5	0	5	5	95
1	1	80	0	80	0	15	0	15	5	95
1	1	95	0	95	0	5	0	5	0	100
1	1	90	0	90	0	5	0	5	5	95
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
2	1	80	0	80	0	15	0	15	5	95
2	1	80	0	80	0	10	0	10	10	90
2	1	70	0	70	0	30	0	30	0	100
2	1	90	0	90	0	5	0	5	5	95
2	1	75	0	75	0	20	0	20	5	95
2	1	83	2	85	0	5	0	5	10	90
2	1	80	5	85	0	5	0	5	10	90
2	1	75	5	80	0	10	0	10	10	90
2	1	85	5	90	0	5	0	5	5	95
2	1	70	5	75	0	5	0	5	20	80
2	1	75	5	80	0	15	0	15	5	95
2	1	60	5	65	0	25	0	25	10	90
2	1	75	0	75	0	10	0	10	15	85
2	1	75	0	75	0	15	0	15	10	90
2	1	80	0	80	0	15	0	15	5	95
2	1	90	0	90	0	10	0	10	5	100
2	1	70	0	70	0	30	0	30	0	100
2	1	85	0	85	0	10	0	10	5	95
2	1	90	5	95	0	5	0	5	0	100
2	1	95	0	95	0	5	0	5	0	100
2	1	85	0	85	0	5	0	5	10	90
2	1	70	10	80	0	10	0	10	10	90
2	1	70	0	70	0	5	0	5	25	75
2	1	60	0	60	0	20	0	20	20	80
2	1	50	0	50	0	25	0	25	25	75
2	1	75	0	75	0	15	0	15	10	90
2	1	85	5	90	0	5	0	5	5	95
2	1	85	0	85	0	0	0	0	15	85
2	1	70	0	70	0	5	0	5	25	75
2	1	95	0	95	0	0	0	0	0	95
2	1	95	0	95	0	0	0	0	0	95
2	1	95	0	95	0	0	0	0	5	95
Average		**86.0**	**0.8**	**86.8**	**0.0**	**7.1**	**0.0**	**7.1**	**6.1**	**93.8**

Transect A4 Sampled 11 June 2023

		Seagrasses			Algae					
Long=1 Short=2	Fouling 0,1,2	*Zostera* % cover	*Halophila* % cover	Total Seagrasses	*Codium* % cover	*Cystoseira* % cover	% algae Filamentous	Total Algae	% Bare Ground	Total Cover
1	1	80	0	80	0	0	0	0	20	80
1	1	80	0	80	0	0	0	0	20	80
1	1	60	0	60	0	5	0	5	35	65
1	1	75	0	75	0	0	0	0	25	75
1	1	85	0	85	0	0	0	0	15	85
1	1	95	0	95	0	0	0	0	5	95
1	1	85	0	85	0	0	0	0	15	85
1	1	80	0	80	0	0	0	0	20	80
1	1	100	0	100	0	0	0	0	0	100
1	1	95	0	95	0	0	0	0	5	95
1	1	95	0	95	0	0	0	0	5	95
1	1	90	0	90	0	0	0	0	10	90
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	95	0	95	0	0	0	0	5	95
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
2	0	5	60	65	0	0	0	0	35	65
2	0	15	60	75	0	0	0	0	25	75
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
Average		**94.6**	**1.8**	**96.4**	**0.0**	**0.1**	**0.0**	**0.1**	**3.5**	**96.5**

Transect A5 Sampled 11 June 2023

		Seagrasses			Algae					
Long=1 Short=2	Fouling 0,1,2	*Zostera* % cover	*Halophila* % cover	Total Seagrasses	*Codium* % cover	*Cystoseira* % cover	% algae Filamentous	Total Algae	% Bare Ground	Total Cover
1	0	60	10	70	0	0	0	0	30	70
1	0	70	5	75	0	0	0	0	25	75
1	0	70	10	80	0	0	0	0	20	80
1	0	85	0	85	0	0	0	0	15	85
1	0	75	0	75	0	0	0	0	25	75
1	0	85	0	85	0	0	0	0	15	85
1	1	85	0	85	0	0	0	0	15	85
1	1	90	0	90	0	0	0	0	10	90
1	1	95	0	95	0	0	0	0	5	95
1	1	100	0	100	0	0	0	0	0	100
1	1	80	0	80	0	0	0	0	20	80
1	1	75	0	75	0	0	0	0	25	75
1	1	85	5	90	0	0	0	0	10	90
1	1	30	15	45	0	0	0	0	55	45
1	1	65	5	70	0	0	0	0	30	70
1	1	70	5	75	0	0	0	0	25	75
1	1	80	5	85	0	0	0	0	15	85
2	0	95	0	95	0	0	0	0	5	95
2	0	80	0	80	0	0	0	0	20	80
2	0	100	0	100	0	0	0	0	0	100
2	0	90	0	90	0	0	0	0	10	90
2	0	95	0	95	0	0	0	0	5	95
2	0	85	0	85	0	0	0	0	15	85
2	0	85	5	90	0	0	0	0	10	90
2	0	85	5	90	0	0	0	0	10	90
2	0	50	25	75	0	0	0	0	25	75
2	0	80	0	80	0	0	0	0	20	80
2	0	80	0	80	0	0	0	0	20	80
2	1	25	5	30	0	0	0	0	70	30
2	1	20	25	45	0	0	0	0	55	45
2	1	50	15	65	0	0	0	0	35	65
2	1	35	10	45	0	0	0	0	55	45
2	1	60	10	70	0	0	0	0	30	70
2	1	60	10	70	0	0	0	0	30	70
2	1	85	0	85	0	0	0	0	15	85
2	1	65	5	70	0	0	0	0	30	70
2	1	80	5	85	0	0	0	0	15	85
2	1	60	5	65	0	0	0	0	35	65
2	1	50	5	55	0	0	0	0	45	55
2	1	70	10	80	0	0	0	0	20	80
2	1	70	5	75	0	0	0	0	25	75
2	1	85	0	85	0	0	0	0	15	85
2	1	90	5	95	0	0	0	0	5	95
2	1	95	0	95	0	0	0	0	5	95
2	1	95	0	95	0	0	0	0	5	95
2	1	85	0	85	0	0	0	0	15	85
2	1	75	0	75	0	0	0	0	25	75
2	1	95	0	95	0	0	0	0	5	95
2	1	90	0	90	0	0	0	0	10	90
2	1	90	5	95	0	0	0	0	5	95
2	1	95	5	100	0	0	0	0	5	100
2	1	90	5	95	0	0	0	0	5	95
2	1	90	5	95	0	0	0	0	5	95
2	1	85	5	90	0	0	0	0	10	90
2	1	90	5	95	0	0	0	0	5	95
2	1	95	0	95	0	0	0	0	5	95
2	1	85	0	85	0	0	0	0	15	85
2	1	80	10	90	0	0	0	0	10	90
2	1	80	0	80	0	0	0	0	20	80
2	1	90	5	95	0	0	0	0	5	95
2	1	85	10	95	0	0	0	0	5	95
2	1	95	5	100	0	0	0	0	0	100
2	1	95	0	95	0	0	0	0	5	95
2	1	90	5	95	0	0	0	0	5	95
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
Average		**79.4**	**4.0**	**83.5**	**0.0**	**0.0**	**0.0**	**0.0**	**16.6**	**83.5**

Transect A6 Sampled 11 June 2023

		Seagrasses			Algae					
Long=1 Short=2	Fouling 0,1,2	*Zostera* % cover	*Halophila* % cover	Total Seagrasses	*Codium* % cover	*Cystoseira* % cover	% algae Filamentous	Total Algae	% Bare Ground	Total Cover
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	95	0	95	0	0	5	5	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	95	0	95	0	0	0	0	5	95
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	90	0	90	0	10	0	10	0	100
1	1	80	0	80	0	10	0	10	10	90
1	2	100	0	100	0	0	0	0	0	100
1	2	100	0	100	0	0	0	0	0	100
1	2	95	0	95	0	5	0	5	0	100
2	1	95	0	95	0	0	5	5	0	100
2	1	95	0	95	0	0	0	0	5	95
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	80	0	80	0	5	0	5	15	85
2	1	90	0	90	0	0	0	0	10	90
2	1	95	0	95	0	5	0	5	0	100
2	1	95	0	95	0	0	0	0	5	95
2	1	100	0	100	0	0	0	0	0	100
2	1	95	0	95	0	5	0	5	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	95	0	95	0	0	5	5	0	100
2	1	95	0	95	0	0	5	5	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	95	0	95	0	5	0	5	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	80	20	100	0	0	0	0	0	100
2	1	95	0	95	0	5	0	5	0	100
2	1	95	2	97	0	0	0	0	3	97
2	1	95	0	95	0	0	0	0	5	95
2	1	95	0	95	0	0	0	0	5	95
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	95	0	95	0	0	0	0	5	95
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	80	0	80	0	0	0	0	20	80
Average		**97.2**	**0.3**	**97.6**	**0.0**	**0.8**	**0.3**	**1.1**	**1.4**	**98.6**

Sugar Bay

Transect S1										Sampled 11 June 2023
		Seagrasses			Algae					
Long=1	Fouling	*Zostera*	*Halophila*	Total	*Codium*	*Cystoseira*	% algae	Total	% Bare	Total
Short=2	0,1,2	% cover	% cover	seagrasses	% cover	% cover	Filamentous	Algae	Ground	Cover
1	1	75	0	75	0	10	0	10	15	85
1	1	90	0	90	0	0	0	0	10	90
1	1	95	0	95	0	0	0	0	5	95
1	1	85	0	85	0	0	0	0	15	85
1	1	90	0	90	0	0	10	10	0	100
1	1	80	0	80	0	10	5	15	5	95
1	1	87	0	87	0	3	10	13	0	100
1	1	87	0	87	0	3	5	8	5	95
1	1	85	0	85	0	5	5	10	5	95
1	1	90	0	90	0	5	0	5	5	95
1	1	95	0	95	0	0	5	5	0	100
1	1	95	0	95	0	5	0	5	0	100
1	1	95	0	95	0	5	0	5	0	100
1	1	85	0	85	0	0	0	0	15	85
1	1	90	0	90	0	10	0	10	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	95	0	95	0	5	0	5	0	100
1	1	90	0	90	0	0	10	10	0	100
1	1	95	0	95	0	5	0	5	0	100
1	1	90	0	90	0	5	5	10	0	100
1	1	95	0	95	0	0	5	5	0	100
1	1	90	0	90	0	0	10	10	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	90	0	90	0	8	2	10	0	100
1	1	90	0	90	0	0	10	10	0	100
1	1	95	0	95	0	2	3	5	0	100
1	1	85	0	85	0	0	15	15	0	100
1	1	90	0	90	0	0	10	10	0	100
1	1	95	0	95	0	0	5	5	0	100
1	1	95	0	95	0	0	5	5	0	100
1	1	98	0	98	0	0	2	2	0	100
1	1	95	0	95	0	5	0	5	0	100
1	1	95	0	95	0	5	0	5	0	100
1	1	95	0	95	0	0	5	5	0	100
1	1	95	0	95	0	0	0	0	5	95
1	1	95	0	95	0	2	3	5	0	100
1	1	90	0	90	0	0	10	10	0	100
1	1	85	0	85	0	0	15	15	0	100
1	1	90	0	90	0	0	10	10	0	100
1	1	95	0	95	0	0	0	0	5	95
1	1	100	0	100	0	0	0	0	0	100
1	1	95	0	95	0	0	5	5	0	100
1	1	95	0	95	0	5	0	5	0	100
1	1	95	0	95	0	0	5	5	0	100
1	1	95	0	95	0	0	0	0	5	95
1	1	90	0	90	0	0	5	5	5	95
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	85	0	85	0	0	15	15	0	100
1	1	85	0	85	0	0	15	15	0	100
1	1	95	0	95	0	5	0	5	0	100
2	1	85	0	85	0	0	0	0	15	85
2	1	90	0	90	0	5	0	5	5	95
2	1	75	0	75	0	12	10	22	3	97
2	1	90	0	90	0	8	0	8	2	98
2	1	70	0	70	0	10	20	30	0	100
2	1	85	0	85	0	0	10	10	5	95
2	1	90	0	90	0	0	10	10	0	100
2	1	90	0	90	0	0	10	10	0	100
2	1	85	0	85	0	15	0	15	0	100
2	1	95	0	95	0	0	5	5	0	100
2	1	90	0	90	0	5	0	5	5	95
2	1	85	0	85	0	5	10	15	5	100
2	1	90	0	90	0	0	10	10	0	100
2	1	80	0	80	0	10	10	20	0	100
2	1	90	0	90	0	10	0	10	0	100
2	1	90	0	90	0	0	10	10	0	100
Average		**90.7**	**0.0**	**90.7**	**0.0**	**2.7**	**4.6**	**7.3**	**2.1**	**98.0**

Transect S2										Sampled 11 June 2023	
		Seagrasses			Algae						
Long=1 Short=2	Fouling 0,1,2	*Zostera* % cover	*Halophila* % cover	Total seagrasses	*Codium* % cover	*Cystoseira* % cover	% algae Filamentous	Total Algae	% Bare Ground	Total Cover	
0	0	0	40	40	0	0	0	0	60	40	
0	0	0	60	60	0	0	0	0	40	60	
1	0	45	10	55	0	0	0	0	45	55	
1	1	98	2	100	0	0	0	0	0	100	
1	1	100	0

Transect S3										Sampled 11 June 2023
		Seagrasses			Algae					
Long=1 Short=2	Fouling 0,1,2	*Zostera* % cover	*Halophila* % cover	Total seagrasses	*Codium* % cover	*Cystoseira* % cover	% algae Filamentous	Total Algae	% Bare Ground	Total Cover
1	1	95	0	95	0	0	0	0	5	95
1	1	100	0	100	0	0	0	0	0	100
1	1	95	0	95	0	0	0	0	5	95
1	1	100	0	100	0	0	0	0	0	100
1	1	95	0	95	0	0	0	0	5	95
1	1	90	0	90	0	0	0	0	10	90
1	1	95	0	95	0	0	0	0	5	95
1	1	85	5	90	0	5	0	5	5	95
1	1	95	5	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	90	5	95	0	0	0	0	5	95
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	95	2	97	0	0	0	0	3	97
1	1	95	0	95	0	0	0	0	5	95
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	98	2	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	95	0	95	0	5	0	5	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	95	0	95	0	5	0	5	0	100
1	2	100	0	100	0	0	0	0	0	100
2	1	25	40	65	0	0	0	0	35	65
2	1	60	15	75	0	0	0	0	25	75
2	1	70	10	80	0	5	0	5	15	85
2	1	60	15	75	0	0	0	0	25	75
2	1	75	5	80	0	5	0	5	15	85
2	1	75	0	75	0	5	0	5	20	80
2	1	70	0	70	0	5	0	5	25	75
2	1	90	5	95	0	0	0	0	5	95
2	1	95	0	95	0	0	0	0	5	95
2	1	95	0	95	0	5	0	5	0	100
2	1	95	5	100	0	0	0	0	0	100
2	1	95	5	100	0	0	0	0	0	100
2	1	95	5	100	0	0	0	0	0	100
2	1	95	0	95	0	0	0	0	5	95
2	1	95	0	95	0	5	0	5	0	100
2	1	90	5	95	0	0	0	0	10	95
2	1	85	5	90	0	5	0	5	5	95
2	1	95	0	95	0	0	0	0	5	95
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	90	5	95	0	0	0	0	5	95
2	1	95	5	100	0	0	0	0	0	100
2	1	85	5	90	0	0	0	0	10	90
2	1	100	0	100	0	0	0	0	0	100
2	1	90	0	90	0	0	0	0	10	90
2	1	90	5	95	0	0	0	0	5	95
2	1	100	0	100	0	0	0	0	0	100
2	1	95	5	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	95	5	100	0	0	0	0	0	100
2	2	100	0	100	0	0	0	0	0	100
Average		**92.9**	**2.4**	**95.3**	**0.0**	**0.7**	**0.0**	**0.7**	**4.0**	**96.1**

Transect S4										Sampled 11 June 2023
		Seagrasses			Algae					
Long=1	Fouling	*Zostera*	*Halophila*	Total	*Codium*	*Cystoseira*	% algae	Total	% Bare	Total
Short=2	0,1,2	% cover	% cover	seagrasses	% cover	% cover	Filamentous	Algae	Ground	Cover
1	0	50	0	50	0	0	0	0	50	50
1	0	40	5	45	0	0	0	0	60	45
1	1	100	0	100	0	0	0	0	0	100
1	1	95	0	95	0	5	0	5	0	100
1	1	95	0	95	0	0	0	0	5	95
1	1	100	0	100	0	0	0	0	0	100
1	1	95	0	95	0	0	0	0	5	95
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	95	0	95	0	0	0	0	5	95
2	1	85	0	85	0	0	0	0	15	85
2	1	95	0	95	0	0	0	0	5	95
2	1	90	5	95	0	0	0	0	5	95
2	1	95	0	95	0	0	0	0	5	95
2	1	95	0	95	0	0	0	0	5	95
2	1	95	0	95	0	0	0	0	5	95
2	1	90	0	90	0	0	0	0	10	90
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	95	0	95	0	0	0	0	5	95
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	95	0	95	0	5	0	5	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	95	0	95	0	5	0	5	0	100
2	1	95	5	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	95	0	95	0	0	0	0	5	95
2	1	95	0	95	0	0	0	0	5	95
2	1	100	0	100	0	0	0	0	0	100
2	1	90	5	95	0	0	0	0	5	95
2	1	95	0	95	0	0	0	0	5	95
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	95	0	95	0	0	0	0	5	95
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	95	0	95	0	0	0	0	5	95
2	1	100	0	100	0	0	0	0	0	100
2	1	95	0	95	0	0	0	0	5	95
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	95	5	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	95	5	100	0	0	0	0	0	100
2	1	90	5	95	0	0	0	0	5	95
2	1	90	0	90	0	5	0	5	5	95
2	1	95	0	95	0	0	0	0	5	95
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	90	5	95	0	0	0	0	5	95
2	1	95	5	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
Average		**95.7**	**0.7**	**96.3**	**0.0**	**0.3**	**0.0**	**0.3**	**3.5**	**96.6**

Transect S5										Sampled 11 June 2023
		Seagrasses			Algae					
Long=1	Fouling	*Zostera*	*Halophila*	Total	*Codium*	*Cystoseira*	% algae	Total	% Bare	Total
Short=2	0,1,2	% cover	% cover	seagrasses	% cover	% cover	Filamentous	Algae	Ground	Cover
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	95	0	95	0	0	5	5	0	100
1	1	95	0	95	0	0	0	0	5	95
1	1	95	0	95	0	0	5	5	0	100
1	1	95	0	95	0	0	0	0	5	95
1	1	85	0	85	0	0	0	0	15	85
1	1	65	0	65	0	0	5	5	30	70
1	1	90	0	90	0	0	0	0	10	90
1	2	100	0	100	0	0	0	0	0	100
1	2	95	5	100	0	0	0	0	0	100
1	2	90	5	95	0	0	0	0	5	95
2	0	80	0	80	0	0	0	0	20	80
2	0	95	0	95	0	0	0	0	5	95
2	0	90	0	90	0	0	0	0	10	90
2	0	95	0	95	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	5	95
2	0	90	0	90	0	10	0	10	0	100
2	0	95	0	95	0	0	0	0	0	95
2	0	90	0	90	0	5	0	5	5	95
2	0	95	0	95	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	5	95
2	0	95	0	95	0	5	0	5	0	100
2	0	100	0	100	0	0	0	0	0	100
2	0	95	0	95	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	5	95
2	0	100	0	100	0	0	0	0	0	100
2	0	95	0	95	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	5	95
2	0	95	0	95	0	5	0	5	0	100
2	0	95	0	95	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	5	95
2	1	100	0	100	0	0	0	0	0	100
2	1	95	0	95	0	0	0	0	5	95
2	1	95	0	95	0	0	0	0	5	95
2	1	95	0	95	0	5	0	5	0	100
2	1	85	0	85	0	0	5	5	10	90
2	1	85	0	85	0	0	5	5	10	90
2	1	80	0	80	0	0	5	5	15	85
2	1	25	15	40	0	0	0	0	60	40
2	1	25	0	25	0	0	0	0	75	25
2	1	95	0	95	0	0	0	0	5	95
2	1	95	0	95	0	0	0	0	5	95
2	1	95	0	95	0	0	0	0	5	95
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	95	0	95	0	0	0	0	5	95
2	1	95	0	95	0	0	0	0	5	95
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	95	0	95	0	5	0	5	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	95	0	95	0	5	0	5	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	2	75	0	75	0	0	0	0	25	75
2	2	95	0	95	0	0	0	0	5	95
2	2	100	0	100	0	0	0	0	0	100
Average		**92.6**	**0.4**	**92.9**	**0.0**	**0.6**	**0.4**	**1.0**	**6.0**	**94.0**

Transect S6										Sampled 11 June 2023
		Seagrasses			Algae					
Long=1	Fouling	*Zostera*	*Halophila*	Total	*Codium*	*Cystoseira*	% algae	Total	% Bare	Total
Short=2	0,1,2	% cover	% cover	seagrasses	% cover	% cover	Filamentous	Algae	Ground	Cover
1	0	90	0	90	0	0	0	0	10	90
1	0	95	0	95	0	0	0	0	5	95
1	1	95	0	95	0	0	0	0	5	95
1	1	90	0	90	0	0	0	0	10	90
1	1	90	0	90	0	0	0	0	10	90
1	1	85	0	85	0	0	0	0	15	85
1	1	95	0	95	0	0	0	0	5	95
1	1	90	0	90	0	0	0	0	10	90
1	1	95	0	95	0	0	0	0	5	95
1	1	80	0	80	0	0	0	0	20	80
1	1	85	0	85	0	0	0	0	15	85
1	1	90	0	90	0	0	0	0	10	90
1	1	95	0	95	0	0	0	0	5	95
1	1	90	0	90	0	0	0	0	10	90
1	1	95	0	95	0	5	0	5	0	100
1	1	95	0	95	0	0	0	0	5	95
1	1	90	0	90	0	0	0	0	10	90
1	1	85	0	85	0	0	0	0	15	85
1	1	85	0	85	0	0	0	0	15	85
1	1	95	0	95	0	0	0	0	5	95
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	95	0	95	0	0	0	0	5	95
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
2	1	95	0	95	0	0	0	0	5	95
2	1	85	0	85	0	0	0	0	15	85
2	1	95	0	95	0	0	0	0	5	95
2	1	85	0	85	0	0	0	0	15	85
2	1	90	0	90	0	0	0	0	10	90
2	1	85	0	85	0	0	0	0	15	85
2	1	85	0	85	0	0	0	0	15	85
2	1	85	0	85	0	0	0	0	15	85
2	1	90	0	90	0	0	0	0	10	90
2	1	85	0	85	0	0	0	0	15	85
2	1	85	0	85	0	10	0	10	5	95
2	1	90	0	90	0	0	0	0	10	90
2	1	90	0	90	0	0	0	0	10	90
2	1	90	0	90	0	0	0	0	10	90
2	1	95	0	95	0	0	0	0	5	95
2	1	95	0	95	0	0	0	0	5	95
2	1	100	0	100	0	0	0	0	0	100
2	1	95	0	95	0	0	0	0	5	95
2	1	95	0	95	0	0	0	0	5	95
2	1	85	0	85	0	0	0	0	15	85
2	1	100	0	100	0	0	0	0	0	100
2	1	95	0	95	0	0	0	0	5	95
2	1	95	0	95	0	0	0	0	5	95
2	1	95	0	95	0	0	0	0	5	95
2	1	85	5	90	0	5	0	5	5	95
2	1	95	0	95	0	0	0	0	5	95
2	1	85	0	85	0	0	0	0	15	85
2	1	95	0	95	0	0	0	0	5	95
2	1	90	5	95	0	0	0	0	5	95
2	1	100	0	100	0	0	0	0	0	100
Average		**93.2**	**0.1**	**93.4**	**0.0**	**0.3**	**0.0**	**0.3**	**6.3**	**93.7**

Crangan Bay

Transect C1										Sampled 12 June 2023
			Seagrasses			Algae				
Long=1 Short=2	Fouling 0,1,2	*Zostera* % cover	*Halophila* % cover	Total Seagrasses	*Codium* % cover	*Cystophyllum* % cover	% algae Filamentous	Total Algae	% Bare Ground	Total Cover
2	1	60	0	60	0	20	0	20	20	80
2	0	80	0	80	0	5	0	5	15	85
2	0	80	0	80	0	10	0	10	10	90
2	0	70	0	70	0	20	0	20	10	90
2	2	70	0	70	0	30	0	30	0	100
2	1	5	0	5	0	80	0	80	15	85
0	0	0	0	0	0	60	0	60	40	60
2	1	10	0	10	0	15	0	15	75	25
2	1	70	0	70	0	30	0	30	0	100
2	1	90	0	90	0	5	0	5	5	95
2	1	100	0	100	0	0	0	0	0	100
2	1	90	0	90	0	0	0	0	10	90
2	1	80	0	80	0	0	0	0	20	80
2	1	85	0	85	0	0	0	0	15	85
2	1	95	0	95	0	5	0	5	0	100
2	1	90	0	90	0	0	0	0	10	90
2	1	100	0	100	0	0	0	0	0	100
2	1	95	0	95	0	5	0	5	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	95	0	95	0	5	0	5	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	95	0	95	0	5	0	5	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	98	0	98	0	0	0	0	2	98
2	1	65	0	65	0	0	0	0	35	65
2	1	80	0	80	0	0	0	0	20	80
2	1	80	0	80	0	15	0	15	5	95
2	1	85	0	85	0	5	0	5	10	90
2	1	75	0	75	0	0	0	0	25	75
2	1	100	0	100	0	0	0	0	0	100
2	1	90	0	90	0	0	0	0	10	90
2	1	98	0	98	0	0	0	0	2	98
2	1	90	0	90	0	5	0	5	5	95
2	1	95	0	95	0	0	0	0	5	95
2	1	90	0	90	0	5	0	5	5	95
2	1	95	0	95	0	0	0	0	5	95
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	80	0	80	0	5	0	5	15	85
2	1	85	0	85	0	0	0	0	15	85
2	1	85	0	85	0	0	0	0	15	85
2	1	75	0	75	25	0	0	25	0	100
2	1	95	0	95	0	5	0	5	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	95	0	95	0	0	0	0	5	95
2	1	95	0	95	0	5	0	5	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	85	0	85	0	0	0	0	15	85
2	1	65	0	65	0	5	0	5	30	70
2	1	50	20	70	25	0	0	25	5	95
2	1	10	20	30	10	5	0	15	55	45
2	1	5	35	40	0	40	0	40	25	80
0	0	0	40	40	0	0	0	0	60	40
2	1	10	20	30	0	30	0	30	40	60
2	1	15	35	50	0	30	0	30	20	80
2	1	40	20	60	0	10	0	10	30	70
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
Average		**79.3**	**2.8**	**82.1**	**0.9**	**6.8**	**0.0**	**7.6**	**10.4**	**89.7**

Transect C2 Sampled 12 June 2023

		Seagrasses			Algae					
Long=1	Fouling	*Zostera*	*Halophila*	Total	*Codium*	*Cystophyllum*	% algae	Total	% Bare	Total
Short=2	0,1,2	% cover	% cover	Seagrasses	% cover	% cover	Filamentous	Algae	Ground	Cover
2	0	90	0	90	0	0	0	0	10	90
2	0	85	0	85	0	5	0	5	10	90
2	0	70	0	70	0	0	10	10	20	80
2	0	70	0	70	0	0	10	10	20	80
2	0	70	0	70	0	0	10	10	20	80
2	0	70	0	70	0	0	10	10	20	80
2	0	80	0	80	0	0	0	0	20	80
2	0	85	0	85	0	0	0	0	15	85
2	0	85	0	85	0	0	0	0	15	85
2	0	75	5	80	0	5	0	5	15	85
2	0	80	5	85	0	0	0	0	15	85
2	0	95	0	95	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	5	95
2	0	100	0	100	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	100
2	0	90	0	90	0	10	0	10	0	100
2	0	100	0	100	0	0	0	0	0	100
2	0	95	0	95	0	5	0	5	0	100
2	0	100	0	100	0	0	0	0	0	100
2	0	95	0	95	0	5	0	5	0	100
2	0	100	0	100	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	100
2	0	80	0	80	0	20	0	20	0	100
2	0	100	0	100	0	0	0	0	0	100
2	0	95	5	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	65	0	65	0	5	0	5	30	70
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	85	0	85	0	0	0	0	15	85
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	95	5	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	70	10	80	0	0	0	0	30	80
2	1	80	0	80	0	0	0	0	20	80
2	1	90	0	90	0	0	0	0	10	90
2	1	100	0	100	0	0	0	0	0	100
2	1	70	0	70	0	0	0	0	30	70
2	1	60	0	60	0	0	0	0	40	60
2	1	100	0	100	0	0	0	0	0	100
2	1	90	0	90	0	0	0	0	10	90
2	1	95	0	95	0	0	0	0	5	95
2	1	90	0	90	0	0	0	0	10	90
2	1	85	5	90	0	0	0	0	10	90
2	1	93	2	95	0	0	0	0	5	95
2	1	93	2	95	0	0	0	0	5	95
2	1	95	0	95	0	0	0	0	5	95
2	1	95	0	95	0	0	0	0	5	95
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	95	0	95	0	0	0	0	5	95
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
Average		**91.6**	**0.6**	**92.2**	**0.0**	**0.8**	**0.6**	**1.4**	**6.5**	**93.6**

Transect C3										Sampled 12 June 2023
		Seagrasses			Algae					
Long=1 Short=2	Fouling 0,1,2	*Zostera* % cover	*Halophila* % cover	Total Seagrasses	*Codium* % cover	*Cystophyllum* % cover	% algae Filamentous	Total Algae	% Bare Ground	Total Cover
2	0	90	0	90	0	0	0	0	10	90
2	0	90	0	90	0	0	0	0	10	90
2	0	95	0	95	0	0	0	0	5	95
2	0	85	0	85	0	0	0	0	15	85
2	0	95	0	95	0	0	0	0	5	95
2	0	100	0	100	0	0	0	0	0	100
2	0	90	0	90	0	0	0	0	10	90
2	0	90	0	90	0	5	0	5	5	95
2	0	85	0	85	0	0	0	0	15	85
2	0	90	0	90	0	0	0	0	10	90
2	0	85	0	85	0	0	5	5	10	90
2	0	80	5	85	0	0	0	0	15	85
2	0	60	10	70	0	5	0	5	25	75
2	1	100	0	100	0	0	0	0	0	100
2	1	95	0	95	0	0	0	0	5	95
2	1	85	5	90	0	5	0	5	10	95
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	95	0	95	0	0	0	0	5	95
2	1	95	0	95	0	0	0	0	5	95
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	95	0	95	0	0	0	0	5	95
2	2	100	0	100	0	0	0	0	0	100
2	2	100	0	100	0	0	0	0	0	100
2	2	80	0	80	0	0	20	20	0	100
2	1	95	0	95	0	0	0	0	5	95
2	1	80	0	80	0	0	10	10	10	90
2	1	100	0	100	0	0	0	0	0	100
2	1	95	0	95	0	0	0	0	5	95
2	1	100	0	100	0	0	0	0	0	100
2	1	95	0	95	0	0	5	5	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	95	0	95	0	0	5	5	0	100
2	1	80	0	80	0	0	20	20	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	90	0	90	0	0	10	10	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	95	0	95	0	5	0	5	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	95	0	95	0	0	5	5	0	100
2	1	95	0	95	0	0	5	5	0	100
2	1	95	0	95	0	0	5	5	0	100
2	1	95	0	95	0	0	5	5	0	100
2	1	85	0	85	0	5	0	5	10	90
2	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	95	0	95	0	0	5	5	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	1	100	0	100	0	0	0	0	0	100
1	0	95	0	95	0	0	5	5	0	100
1	0	90	0	90	0	10	0	10	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
2	1	100	0	100	0	0	0	0	0	100
Average		**94.9**	**0.3**	**95.1**	**0.0**	**0.5**	**1.5**	**2.1**	**2.9**	**97.2**

Transect C4 Sampled 12 June 2023

		Seagrasses			Algae					
Long=1 Short=2	Fouling 0,1,2	*Zostera* % cover	*Halophila* % cover	Total Seagrasses	*Codium* % cover	*Cystophyllum* % cover	% algae Filamentous	Total Algae	% Bare Ground	Total Cover
2	0	70	0	70	0	0	0	0	30	70
2	0	90	0	90	0	0	0	0	10	90
2	0	85	0	85	0	0	0	0	15	85
2	0	85	0	85	0	0	0	0	15	85
2	0	75	0	75	0	10	0	10	15	85
2	0	85	0	85	0	10	0	10	5	95
2	0	100	0	100	0	0	0	0	0	100
2	1

Appendix 2 Changes in percent cover of seagrasses in the study area from 2008 to 2023

Changes in percent cover of the substratum by seagrasses off the northern shore of Summerland Point and Frying Pan Bay (2018-2023)

Transect C5	2018	2019	2020	2021	2022	2023
% seagrass	100.0	100.0	99.71	99.71	99.71	93.12
% bare ground	0.00	0.00	0.29	0.00	0.29	3.47
Transect C6	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**
% seagrass	99.56	97.76	95.88	98.60	98.09	95.13
% bare ground	0.44	2.24	4.11	1.25	1.91	4.13
Transect F1	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**
% seagrass	97.81	100.0	99.34	99.41	99.19	95.65
% bare ground	2.19	0.00	0.66	0.59	0.81	3.71
Transect F2	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**
% seagrass	99.63	94.93	98.82	96.03	90.29	50.23
% bare ground	0.37	5.07	1.18	2.13	9.71	21.38
Transect F3	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**
% seagrass	99.93	87.82	97.06	97.65	97.53	86.47
% bare ground	0.07	12.18	2.94	2.35	2.47	11.66
Transect F4	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**
% seagrass	98.16	48.90	96.40	97.94	96.40	96.84
% bare ground	1.84	51.1	3.60	2.06	3.60	2.79
Transect F5	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**
% seagrass	99.04	80.80	90.96	96.40	90.66	85.68
% bare ground	0.96	19.2	9.04	3.53	9.34	10.54
Transect F6	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**
% seagrass	100.0	81.99	96.25	95.96	96.10	85.96
% bare ground	10.00	18.01	3.75	3.97	3.90	12.57
Transect F7	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**
% seagrass	98.24	97.65	87.57	95.22	86.62	79.41
% bare ground	1.76	2.35	12.43	4.78	13.38	20.29

Changes in percent cover of the substratum by seagrasses off the western shore of Summerland Point (2008-2023)

Transect E7	2008	2010	2011	2012	2013	2015	2016	2017	2018	2019	2020
% seagrass	97.93	51.40	45.47	68.31	43.38	92.65	100.0	98.16	98.16	97.65	93.75
% bare ground	2.07	48.60	54.53	31.69	56.62	7.35	0.00	1.84	1.84	2.35	6.25
Transect T1	**2008**	**2010**	**2011**	**2012**	**2013**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
% seagrass	88.94	41.90	32.60	77.91	94.41	94.65	97.35	99.47	85.29	59.92	97.87
% bare ground	11.06	58.10	67.40	22.09	5.59	5.35	2.65	0.53	14.71	40.08	2.13
Transect T2	**2008**	**2010**	**2011**	**2012**	**2013**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
% seagrass	77.91	70.29	7.95	75.74	60.83	74.41	90.59	93.31	90.00	76.87	97.50
% bare ground	22.09	29.71	92.05	24.26	39.17	25.59	9.41	6.69	10.00	23.13	2.5

Transect T3	2008	2010	2011	2012	2013	2015	2016	2017	2018	2019	2020
% seagrass	46.20	63.16	58.53	83.53	89.93	93.82	96.10	98.19	97.57	63.01	94.85
% bare ground	53.80	36.84	41.47	16.47	10.07	6.18	3.90	1.81	2.43	36.99	5.14
Transect T4	**2008**	**2010**	**2011**	**2012**	**2013**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
% seagrass	83.51	81.89	70.37	90.37	97.28	97.94	99.85	95.76	95.07	70.44	82.06
% bare ground	16.49	18.01	29.63	9.63	2.72	2.06	0.15	4.24	4.93	29.56	17.94
Transect T5	**2008**	**2010**	**2011**	**2012**	**2013**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
% seagrass	81.78	77.00	51.40	92.35	99.12	99.41	98.82	99.56	89.63	62.65	79.71
% bare ground	18.22	23.00	48.60	7.65	0.88	0.59	1.18	0.44	10.37	37.35	20.29
Transect T6	**2008**	**2010**	**2011**	**2012**	**2013**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
% seagrass	53.82	59.63	44.77	65.59	95.22	95.74	98.82	94.41	97.13	46.18	79.12
% bare ground	46.18	40.37	53.23	34.41	4.78	4.26	1.18	5.59	2.87	53.82	20.88
Transect T7	**2008**	**2010**	**2011**	**2012**	**2013**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
% seagrass	97.93	70.79	89.34	89.09	99.78	98.38	100.0	99.85	98.97	25.88	82.50
% bare ground	2.07	29.51	10.66	10.91	0.22	1.62	0.00	0.15	1.03	74.12	17.50
Transect T8	**2008**	**2010**	**2011**	**2012**	**2013**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
% seagrass	95.94	60.29	76.99	87.64	96.76	99.26	99.26	98.24	100.0	46.32	87.21
% bare ground	4.06	39.71	23.01	13.26	3.24	0.74	0.74	1.76	0.00	53.68	12.79

Transect E7	2021	2022	2023
% seagrass	93.75	93.90	87.28
% bare ground	6.18	6.10	12.65
Transect T1	**2021**	**2022**	**2023**
% seagrass	90.96	95.81	92.25
% bare ground	7.06	4.19	5.00
Transect T2	**2021**	**2022**	**2023**
% seagrass	98.31	97.35	74.41
% bare ground	1.32	2.65	20.66
Transect T3	**2021**	**2022**	**2023**
% seagrass	98.68	94.56	88.75
% bare ground	1.32	5.44	9.12
Transect T4	**2021**	**2022**	**2023**
% seagrass	99.93	89.85	90.26
% bare ground	0.07	10.15	8.63

Transect T5	2021	2022	2023
% seagrass	98.97	86.40	84.26
% bare ground	1.03	13.6	15.15
Transect T6	**2021**	**2022**	**2023**
% seagrass	98.16	81.47	86.03
% bare ground	1.84	18.53	13.90
Transect T7	**2021**	**2022**	**2023**
% seagrass	100.0	82.28	84.25
% bare ground	0.00	17.72	15.46
Transect T8	**2021**	**2022**	**2023**
% seagrass	98.82	87.50	83.24
% bare ground	1.18	12.50	16.99

Changes in percent cover of the substratum by seagrasses in Chain Valley Bay (2008-2023)

Transect E1	2008	2010	2011	2012	2013	2015	2016	2017	2018	2019	2020
% seagrass	84.15	81.01	77.75	98.62	99.44	92.44	99.88	97.96	97.87	99.12	99.04
% bare ground	15.85	18.99	22.25	1.38	0.56	7.56	0.12	2.04	2.13	0.88	0.96
Transect E2	**2008**	**2010**	**2011**	**2012**	**2013**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
% seagrass	83.72	75.87	73.38	95.49	99.09	98.49	99.71	100.0	97.94	97.94	98.53
% bare ground	16.28	24.13	26.62	4.49	0.91	1.51	0.29	0.00	2.06	2.06	1.47
Transect E3	**2008**	**2010**	**2011**	**2012**	**2013**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**

% seagrass	98.29	98.97	92.76	96.97	99.16	100.0	83.53	98.90	94.56	98.97	100.0
% bare ground	1.71	1.03	7.24	1.54	0.84	0.00	16.47	1.10	5.44	1.03	0.00
Transect E4	**2008**	**2010**	**2011**	**2012**	**2013**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
% seagrass	80.16	98.54	95.74	100.0	97.50	96.43	98.01	96.76	99.71	99.85	98.82
% bare ground	19.84	1.46	4.26	0.00	2.50	3.57	1.99	3.24	0.29	0.15	1.18
Transect L1	**2008**	**2010**	**2011**	**2012**	**2013**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
% seagrass						99.12	99.71	97.87	97.87	94.63	95.74
% bare ground						0.88	0.29	2.13	2.13	5.37	4.26
Transect E5	**2008**	**2010**	**2011**	**2012**	**2013**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
% seagrass	95.88	94.93	95.19	100.0	98.82	99.82	100.0	97.22	99.41	98.97	100.0
% bare ground	4.12	5.07	4.81	0.00	1.18	0.18	0.00	2.78	0.59	1.03	0.00
Transect E6	**2008**	**2010**	**2011**	**2012**	**2013**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
% seagrass	17.74	34.06	49.56	55.51	54.93	76.62	100.0	99.56	89.91	76.69	97.35
% bare ground	82.16	65.94	50.44	44.49	45.07	23.38	0.00	0.44	10.09	23.31	2.65
Transect E8	**2008**	**2010**	**2011**	**2012**	**2013**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
% seagrass	99.32	84.26	95.56	90.96	99.93	99.85	100.0	99.34	100.0	99.34	97.87
% bare ground	0.68	15.74	4.44	9.04	0.07	0.15	0.00	0.66	0.00	0.66	2.13
Transect E9	**2008**	**2010**	**2011**	**2012**	**2013**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
% seagrass	95.94	99.39	95.51	99.49	99.71	99.56	100.0	99.78	100.0	100.0	99.71
% bare ground	4.06	0.61	4.49	0.51	0.29	0.44	0.00	0.22	0.00	0.00	0.29
Transect E10	**2008**	**2010**	**2011**	**2012**	**2013**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
% seagrass	97.94	92.21	86.25	98.99	98.82	NS	100.0	100.0	100.0	98.21	97.94
% bare ground	2.06	7.79	13.75	1.01	1.18		0.00	0.00	0.00	1.79	2.06
Transect E11	**2008**	**2010**	**2011**	**2012**	**2013**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
% seagrass			86.93	99.85	99.49	NS	100.0	100.0	100.0	98.94	99.63
% bare ground			13.07	0.15	0.51		0.00	0.00	0.00	1.06	0.37
Transect E12	**2008**	**2010**	**2011**	**2012**	**2013**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
% seagrass			95.68	95.53	98.09	NS	100.0	100.0	100.0	97.0	99.26
% bare ground			7.32	4.47	1.91		0.00	0.00	0.00	3.0	0.74
Transect E13	**2008**	**2010**	**2011**	**2012**	**2013**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
% seagrass			93.97	99.26	100.0	NS	100.0	100.0	100.0	99.95	100
% bare ground			6.03	0.74	0.00		0.00	0.00	0.00	0.05	0.00
Transect E14	**2008**	**2010**	**2011**	**2012**	**2013**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
% seagrass			86.54	99.34	100.0	NS	100.0	90.44	100.0	98.24	99.41
% bare ground			13.46	0.56	0.00		0.00	9.56	0.00	1.76	0.59
Transect E15	**2008**	**2010**	**2011**	**2012**	**2013**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
% seagrass			90.29	99.93	99.66	NS	100.0	93.31	99.85	50.66	99.34
% bare ground			9.71	0.07	0.34		0.00	6.69	0.15	49.34	0.66
Transect E16	**2008**	**2010**	**2011**	**2012**	**2013**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
% seagrass			82.79	93.22	94.12	NS	100.0	99.94	99.71	95.0	98.31
% bare ground			17.21	6.78	5.88		0.00	0.06	0.29	5.0	1.69

Transect E1	**2021**	**2022**	**2023**
% seagrass	99.34	98.81	85.35
% bare ground	0.66	1.19	9.03

Transect E9	**2021**	**2022**	**2023**
% seagrass	100.0	99.71	96.22
% bare ground	0.00	0.29	3.46

Transect E2	2021	2022	2023
% seagrass	99.26	98.74	87.24
% bare ground	0.37	1.26	5.07
Transect E3	**2021**	**2022**	**2023**
% seagrass	99.93	100.0	96.69
% bare ground	0.66	0.00	3.31
Transect E4	**2021**	**2022**	**2023**
% seagrass	98.68	98.68	91.51
% bare ground	0.88	1.32	5.81
Transect L1	**2021**	**2022**	**2023**
% seagrass	99.85	97.65	93.65
% bare ground	0.15	2.35	5.62
Transect E5	**2021**	**2022**	**2023**
% seagrass	100.0	99.54	96.37
% bare ground	0.00	0.46	3.12
Transect E6	**2021**	**2022**	**2023**
% seagrass	99.78	94.71	75.04
% bare ground	0.00	5.29	22.09
Transect E8	**2021**	**2022**	**2023**
% seagrass	99.78	98.09	87.51
% bare ground	0.00	1.91	12.41

Transect E10	2021	2022	2023
% seagrass	100.0	99.72	89.03
% bare ground	0.00	0.28	2.75
Transect E11	**2021**	**2022**	**2023**
% seagrass	100.0	100	96.56
% bare ground	0.00	0.00	3.22
Transect E12	**2021**	**2022**	**2023**
% seagrass	100.0	100	94.82
% bare ground	0.00	0.00	4.81
Transect E13	**2021**	**2022**	**2023**
% seagrass	99.71	100	99.34
% bare ground	0.29	0.00	0.44
Transect E14	**2021**	**2022**	**2023**
% seagrass	99.78	99.63	92.50
% bare ground	0.22	0.37	6.62
Transect E15	**2021**	**2022**	**2023**
% seagrass	100.0	99.78	89.63
% bare ground	0.00	0.22	10.15
Transect E16	**2021**	**2022**	**2023**
% seagrass	98.75	98.75	95.22
% bare ground	1.25	1.25	4.63

Changes in percent cover of the substratum by seagrasses in Bardens Bay (2014-2023)

Transect A1	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
% seagrass	97.97	98.09	88.97	99.85	96.18	85.15	88.88	97.87	89.41	74.26
% bare ground	2.03	1.91	11.03	0.15	3.82	14.85	11.10	1.91	10.59	16.32
Transect A2	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**
% seagrass	92.38	96.99	98.75	98.38	94.93	98.09	96.91	97.13	96.18	82.47
% bare ground	7.62	3.01	1.25	1.62	5.07	1.91	3.09	2.28	3.82	8.90
Transect A3	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**
% seagrass	100.0	86.40	94.85	96.69	98.01	99.26	99.12	91.03	99.19	86.78
% bare ground	0.00	13.60	5.15	3.31	1.99	0.74	0.88	8.97	0.81	6.09
Transect A4	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**
% seagrass	94.51	93.97	99.12	100.0	89.78	48.98	99.41	100.0	98.31	96.40
% bare ground	5.49	6.03	0.88	0.00	10.22	51.02	0.59	0.00	1.69	3.53
Transect A5	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**
% seagrass	96.37	95.59	99.71	100.0	97.35	84.50	96.76	97.13	97.96	83.46
% bare ground	3.63	4.41	0.29	0.00	2.65	15.50	3.24	2.87	2.04	16.62
Transect A6	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**
% seagrass	99.56	98.01	96.97	97.65	93.53	90.88	94.26	96.62	96.84	97.57
% bare ground	0.44	1.99	3.03	2.35	6.47	9.12	5.74	3.38	3.16	1.35

Changes in percent cover of the substratum by seagrasses in Sugar Bay (2018-2023)

Transect S1	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**
% seagrass	62.50	24.71	99.63	97.79	99.63	90.69
% bare ground	37.50	75.29	0.37	0.74	0.37	2.06
Transect S2	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**
% seagrass	96.62	85.83	97.50	96.54	93.90	94.34
% bare ground	3.38	14.17	2.50	3.46	6.10	5.37
Transect S3	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**
% seagrass	99.19	97.13	98.75	100.0	98.53	95.32
% bare ground	0.81	2.87	1.25	0.00	1.47	4.01
Transect S4	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**
% seagrass	99.97	98.82	99.56	100.0	99.41	96.32
% bare ground	0.03	1.18	0.44	0.00	0.59	3.46
Transect S5	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**
% seagrass	99.12	67.08	75.88	94.56	79.34	92.94
% bare ground	0.88	32.92	24.11	5.37	20.66	5.96
Transect S6	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**
% seagrass	100.0	99.78	100.0	98.57	99.41	93.38
% bare ground	0.00	0.22	0.00	1.32	0.59	6.32

Changes in percent cover of the substratum by seagrasses in Crangan Bay (2008-2023)

Transect C1	**2008**	**2010**	**2011**	**2012**	**2013**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
% seagrass	48.60	80.53	68.71	85.38	99.31	94.04	99.94	76.18	99.68	34.26	88.68
% bare ground	51.40	19.47	31.29	14.62	0.69	5.96	0.06	23.82	0.32	65.74	11.32
Transect C2	**2008**	**2010**	**2011**	**2012**	**2013**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
% seagrass	93.09	98.03	67.79	95.21	97.24	100.0	98.09	99.40	96.69	81.62	96.76
% bare ground	6.91	1.97	32.21	4.79	2.76	0.00	1.91	0.60	3.31	18.38	3.24
Transect C3	**2008**	**2010**	**2011**	**2012**	**2013**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
% seagrass	95.59	88.75	94.41	97.16	99.93	98.46	99.90	96.47	100.0	87.21	96.84
% bare ground	4.41	11.25	5.59	2.84	0.07	1.54	0.10	3.53	0.00	12.79	3.16
Transect C4	**2008**	**2010**	**2011**	**2012**	**2013**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
% seagrass	87.25	86.56	58.09	90.40	100.0	99.49	99.96	96.47	96.76	74.56	94.93
% bare ground	12.75	13.44	41.91	9.60	0.00	0.51	0.04	3.53	3.24	25.44	5.07

Transect C1	2021	2022	2023
% seagrass	93.90	89.04	82.07
% bare ground	3.90	10.96	10.35
Transect C2	**2021**	**2022**	**2023**
% seagrass	97.72	98.60	92.21
% bare ground	1.25	1.40	6.54
Transect C3	**2021**	**2022**	**2023**
% seagrass	100.0	97.81	95.15
% bare ground	0.00	2.19	2.87
Transect C4	**2021**	**2022**	**2023**
% seagrass	99.85	97.15	95.22
% bare ground	0.15	2.85	1.62