

DELTA POWER and ENERGY

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



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1. Executive Summary

Seagrass monitoring is a requirement of Development Consent SSD-5465. The extraction plan prepared by Delta Power and Energy was designed to ensure there will be negligible changes in the size, distribution and functioning of seagrass beds, and negligible changes to the composition or distribution of seagrass species within the seagrass beds. The seagrass survey was conducted on 6th, 12th, 16th and 17th June 2025. Fifty-three transects were photographed, six control transects located along Crangan Bay and Frying Pan Bay and 47 impact transects off Chain Valley Bay, Summerland, Bardens Bay and Sugar Bay, Lake Macquarie.

Zostera capricorni has two growth forms in Lake Macquarie, namely short and long leaf growth forms. During the June 2025 survey, the average leaf lengths of *Zostera capricorni* were less than 100 mm at twelve transects, between 100 mm and 300 mm at 36 transects, and had leaf lengths greater than 300 mm at five transects. The average leaf length of *Zostera capricorni* was 175.4 mm off Chain Valley Bay, 124.2 mm off the northern shore of Summerland Point and Frying Pan Bay, 176.4 mm off the western shore of Summerland Point, 220 mm along Sugar Bay and 183.1 mm off Bardens Bay. The average length of *Zostera capricorni* off Crangan Bay was 85.8 mm.

Seagrasses provide a substrate for algae, which can have positive and negative effects depending on the extent of fouling. In the June 2025 survey, 48 of the 53 transects had seagrasses that were lightly fouled by algae, four transects had light to moderate fouling, and one transect had some seagrasses that were heavily fouled. The algae were either growing on the seagrasses or had formed thin mats on top of the seagrasses. The condition of the seagrasses in the study area were in fair to good condition at the time of sampling.

Two species of seagrass were identified in the study area, *Zostera capricorni* and *Halophila ovalis*. *Zostera capricorni* was found along the length of the transects. *Halophila ovalis* was found predominantly in shallower waters and nestled amongst less dense patches of *Zostera capricorni*. In June 2025, the average total seagrass coverage was 78.7% along Chain Valley Bay, 83.7% along the northern shore of Summerland Point and Frying Pan Bay, 83.8% along the western shore of Summerland Point, and 81.5% along Bardens Bay. Sugar Bay and Sunshine had an average total seagrass coverage of 87.1%, and the total average seagrass coverage off Crangan Bay was 87.1%. The transects with the lowest coverage of seagrass were E14 (30.3%), E6 (52.5%), L1 (65.8%) and E5 (68%).

Six species of alga were recorded in the study area, namely *Cystoseira trinodis* (synonym

Cystophyllum onustum), *Sargassum* sp, *Codium fragile*, *Corallina officinalis*, *Caulerpa taxifolia* and free-floating sea lettuce (Ulvaceae). *Codium fragile* and *Caulerpa taxifolia* did not occur commonly within the transects. The highest percentage cover of *Cystoseira trinodis* ranged from 1.9% at E1 to 5.2% at E6.

The percentage of bare ground or area not occupied by seagrass has increased throughout the study area since 2024. The average percentage of bare ground along the transects located off Chain Valley Bay was 20.5%. Along the northern shore of Summerland Point and Frying Pan Bay the average percentage of bare ground was 15.7%. The average percentage of bare ground or area not occupied by seagrasses was 16% along the western shore of Summerland Point, 16.3% along Bardens Bay, and 12.6% along Sugar Bay and Sunshine. The average percentage of bare ground along the transects off Crangan Bay was 10.4%.

Seagrass cover has decreased throughout the study area. Comparisons between the annual seagrass surveys of 2024 and 2025 show a decrease in percentage cover of seagrasses at thirteen out of sixteen transects in Chain Valley Bay, seven out of nine transects along the northern shore of Summerland Point and Frying Pan Bay, six out of nine transects off the western shore of Summerland Point, five out of seven transects in Bardens Bay, and three out of six transects along Sugar Bay and Sunshine. There was a slight decrease in percentage cover of seagrasses at all four transects in Crangan Bay. Factors that are causing the decline in seagrass coverage include deposition of sediment on seagrass beds, presence of mussels within the transects, and the scouring of seagrass beds by boat hulls and anchors.

In June 2025, there was no evidence that underground mining activities were impacting the composition of seagrass species in the study area. The composition of seagrass species growing within the transects was consistent with the composition of seagrass species recorded during the seagrass surveys of 2023 and 2024.

At the time of the survey, there was no evidence that underground mining activities were having an impact on the size and distribution of seagrass species in the study area. The size and distribution of seagrass beds had not changed significantly since 2024. An exception to this was transect E14 where sea floor sand had been deposited on the seagrass beds decreasing the length of the transect.

The physical characteristics of the waters above the seagrass beds in the study area were measured at the time of the survey. Water temperature ranged from 15.66°C to 19.13°C, with a mean water temperature of 17.62°C. Conductivity ranged from 40.52 mS/cm to 46.95 mS/cm.

Mean conductivity was 44.23 mS/cm. Salinity ranged from 25.88 ppt to 30.50 ppt. Mean salinity was 28.54 ppt. pH ranged from 7.57 to 7.95, mean pH was 7.78. Dissolved oxygen (% saturation) ranged from 68.0% to 101.2%. Average dissolved oxygen was 87.4% saturation. Oxidation reduction potential ranged from 389 mV to 565 mV with an average of 443 mV. Turbidity ranged from 2.4 NTU to 19.8 NTU, with a mean of 5.75 NTU.

Rainfall in the months preceding the survey of June 2025 was 66.8 mm, 38.2 mm, 137.6 mm, 228 mm and 448 mm for January, February, March, April and May 2025 respectively (Cooranbong Lake Macquarie AWS No. 061412). By 12th June a further 6.4 mm had fallen in the catchment. The influx of freshwater into Lake Macquarie has reduced the salinity of Lake Macquarie from an average of 37.16 ppt in June 2023, 34.39 ppt in September 2024, 31.32 ppt in May 2025 and 28.54 ppt in June 2025.

2. Table of Contents

1.	Executive Summary	2
2.	Table of Contents	5
3.	Introduction	8
4.	Methods	9
5.	Monitoring Points	10
6.	Results	13
	a. Leaf length	13
	b. Fouling	15
	c. Coverage	15
	d. Composition of seagrass beds	29
	e. Seagrass Extents	33
	f. Water Quality	35
7.	Discussion	39
8.	Conclusion and Compliance Table	41
9.	References	42
	Appendices	43
	A. Background Information	43
	i. Factors affecting the depth of water in Lake Macquarie	43
	ii. Factors affecting the presence of seagrasses in Lake Macquarie	44
	iii. Seagrasses and algae found in Lake Macquarie	45
	iv. Growth form of <i>Zostera capricorni</i> and fouling extent by epiphytic algae	50
	B. Water Quality Data	54
	C. Seagrass Data – Analysis of Transects	70

List of Tables

6A.1	Average leaf length in millimeters of <i>Zostera capricorni</i> , June 2025	14
6C.1	Average percentage area cover of substratum by seagrasses and algae – Chain Valley Bay	18
6C.2	Average percentage area cover of substratum by seagrasses and algae – northern shore Summerland Point and Frying Pan Bay	19
6C.3	Average percentage area cover of substratum by seagrasses and algae – western shore Summerland Point	20
6C.4	Average percentage area cover of substratum by seagrasses and algae – Bardens Bay	20
6C.5	Average percentage area cover of substratum by seagrasses and algae – Sugar Bay and Sunshine	21
6C.6	Average percentage area cover of substratum by seagrasses and algae – Crangan Bay	21
6E.1	Coordinates of inner and out ends of seagrass transects in Chain Valley Bay	33
6E.2	Coordinates of inner and out ends of seagrass transects off northern shore Summerland Point and Frying Pan Bay	34
6E.3	Coordinates of inner and out ends of seagrass transects along western shore Summerland Point	34

6E.4	Coordinates of inner and out ends of seagrass transects in Bardens Bay	34
6E.5	Coordinates of inner and out ends of seagrass transects in Sugar Bay and off Sunshine	35
6E.6	Coordinates of inner and out ends of seagrass transects in Crangan Bay	35
6F.1	Physical characteristics of waters above seagrass transects, Lake Macquarie - 2025	36
C.2	Changes in percentage cover of seagrasses along Cams Wharf and Point Wolstoncroft, 2022-2025	53

List of Figures

5.1	Locations of seagrass monitoring transects, Lake Macquarie	12
6C.1	Changes in percentage cover of seagrasses along Chain Valley Bay (2010-2025)	22
6C.2	Changes in percentage cover of seagrasses along northern shore Summerland Point and Frying Pan Bay (2018-2025)	23
6C.3	Changes in percentage cover of seagrasses along western shore Summerland Point (2009-2025)	23
6C.4	Changes in percentage cover of seagrasses along Bardens Bay (2014-2025)	24
6C.5	Changes in percentage cover of seagrasses along western shore Sugar Bay and Sunshine (2018-2025)	24
6C.6	Changes in percentage cover of seagrasses along Crangan Bay (2015-2025)	25
6D.1	Changes in percentage cover of <i>Zostera capricorni</i> and <i>Halophila ovalis</i> along Chain Valley Bay (2023-2025) – Impact Transects	30
6D.2	Changes in percentage cover of <i>Zostera capricorni</i> and <i>Halophila ovalis</i> along the northern shore of Summerland Point and Frying Pan Bay (2023-2025) – Control and Impact Transects	30
6D.3	Changes in percentage cover of <i>Zostera capricorni</i> and <i>Halophila ovalis</i> along the western shore of Summerland Point (2023-2025) – Impact Transects	31
6D.4	Changes in percentage cover of <i>Zostera capricorni</i> and <i>Halophila ovalis</i> along Bardens Bay (2023-2025) – Impact Transects	31
6D.5	Changes in percentage cover of <i>Zostera capricorni</i> and <i>Halophila ovalis</i> along Sugar Bay and Sunshine (2023-2025) – Impact Transects	32
6D.6	Changes in percentage cover of <i>Zostera capricorni</i> and <i>Halophila ovalis</i> along Crangan Bay (2023-2025) – Control Transects	32
A1	Water level changes in a coastal lagoon with an entrance open to coastal waters	43
A2	Mean percentage changes in PAR with depth at Wyee Point over 12 months	45

List of Plates

6C.1	<i>Zostera capricorni</i> covered by fine sediment and being suppressed following strong winds	27
6C.2	Presence of mussels amongst the seagrass beds	28
6C.3	Seagrass bed damaged by boating activities	28
6C.4	Filamentous algal mats covering underlying seagrasses	29
A1	Seagrasses and alga found in of Lake Macquarie	45
A.2	Short leaved seagrass with no fouling	51

A.3	Short leaved seagrass with light fouling	51
A.4	Short leaved seagrass with heavy fouling	52
A.5	Long leaved seagrass with light fouling	52
A.6	Long leaved seagrass with moderate fouling	53
A.7	Long leaved seagrass with heavy fouling	53
A.8	Algae, <i>Halophila</i> and bare ground	54

3. 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 average depth of the lake is 8 metres (26 ft), with a maximum depth of 15 metres (49 ft). The lake has a permanent entrance to coastal waters at Swansea, and a shore length of approximately 174 kilometres.

Lake Macquarie contains approximately ten percent of the total area of seagrass beds in NSW (DPI 2007). Four species of seagrass occur in the lake, namely *Zostera capricorni* (eelgrass), *Halophila ovalis* (paddle weed), *Posidonia australis* and *Ruppia*. *Posidonia australis* is listed as an endangered species under the Fisheries Management Act, 1994.

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 Power and Energy P/L 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° angle of draw from the depth of mining. The zone is approximately 130 meters wide (Figure 1.1).

J.H. & E.S. Laxton – Environmental Consultants P/L was engaged to assess the potential effects of underground mining on seagrasses in Lake Macquarie. The mine is currently undertaking first workings. Ongoing monitoring of seagrasses is a requirement of Development Consent SSD-5465 (Modification 3), Schedule 4, Condition 7(i) and Schedule 4, Table 8, which states:

“7. The Applicant must prepare an Extraction Plan for all second workings on site, to the satisfaction of the Planning Secretary. Each Extraction Plan must:

- (i) Include a Seagrass Management Plan, which has been prepared in consultation with BCD, LMCC, and DPI Fisheries, which provides for the management of the potential impacts and/or environmental consequences of the proposed second workings on seagrass beds, and which includes:
 - A program of ongoing monitoring of seagrasses in both control and impact sites; and
 - A program to predict and manage subsidence impacts and environmental consequences to seagrass beds to ensure the performance measures in Table 8 are met.”

The subsidence impact performance measures relevant to seagrass beds contained in Table 8 are as follows:

- “Negligible environmental consequences including:
 - Negligible change in the size and distribution of seagrass beds;
 - Negligible change in the functioning of seagrass beds; and
 - Negligible change to the composition of distribution of seagrass species within seagrass beds.”

The annual seagrass survey was conducted on the 6th, 12th, 16th and 17th June 2025.

4. Methods

Fifty-three transects were photographed in June 2025. At each transect the following procedure was carried out:

- A GPS unit was used to locate the inner and outer extent of the seagrass beds.
- A weighted line was used to measure water depth.
- A water quality profile from surface to bottom was measured using a calibrated Yeo-Kal 618 Water Quality Analyser. Water temperature, conductivity, salinity, pH, ORP, dissolved oxygen, turbidity and depth were measured. Each line of data was stored in the memory of the machine.
- Leaf length of *Zostera capricorni* was measured in the field. Leaves were selected randomly along the transect and measured with a ruler. Leaf length was recorded. This

method was adopted to reduce damage to the seagrass and prevent any negative impacts on the seagrass beds.

- A GoPro video camera was used to video the seagrass beds from the outer extent to the inner extent.

In the laboratory, the video was examined by viewing still frames approximately every 0.5m along the transect. The following information was recorded:

- The transect number and the date the video was taken.
- 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=light fouling, 1=moderate fouling, 2=heavy fouling);
 - (e) % area occupied by the large brown alga *Cystoseira trinodis*;
 - (f) % area occupied by the green alga *Codium fragile* or *Codium mamillosum*;
 - (g) % area occupied by filamentous and thallose algae (green, red or brown algae);
 - (h) % area occupied by the invasive alga *Caulerpa taxifolia*;
 - (i) % area of uncolonised ground (bare ground, no macroscopic epibenthos).

5. Monitoring Points

Figure 5.1 shows the CVC SSD-5465 Consent Boundary and the location of the seagrass transects photographed during the June (Winter) 2025 survey. Transects were located in Bardens Bay, Sugar Bay, off Sunshine, Frying Pan Bay, Summerland Point, Chain Valley Bay and Crangan Bay. Fifty-three transects were photographed:

- Transects C1 to C4 are established control stations in Crangan Bay
- 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
- Transect L1 was established in Chain Valley Bay in 2015 and is in vicinity of Vales Point Power Station

- Transects A1 to A6 are established experimental stations in Bardens Bay. They were first surveyed in 2014
- Transects C5 to C6 were established in 2018
- Transects F1 to F7 are established experimental transects along Summerland Point, established in 2018, and
- Transects S1 to S6 are established experimental transects in Sugar Bay, also established in 2018.
- Transects S7 to S9 were established in July 2024 off Sunshine.



Figure 5.1 Locations of seagrass monitoring transects, Lake Macquarie

6. Results

A. Leaf length

In Lake Macquarie, due to environmental factors, *Zostera capricorni* has either short leaf (Plate A.2) or long leaf growth form (Plate A.5). At the time of survey, the average leaf lengths of *Zostera capricorni* were less than 100 mm at twelve transects, between 100 mm and 300 mm at 36 transects, and had leaf lengths greater than 300 mm at five transects.

The average leaf length of *Zostera capricorni* off Chain Valley Bay was 175.4 mm, with averages ranging from 122.7 mm at transect E12 to 312.8 mm at transect E16. The average length of *Zostera capricorni* off the northern shore of Summerland Point and Frying Pan Bay was 124.2 mm, with averages ranging from 29.5 mm at transect F6 to 278.8 mm at F2. The average length of *Zostera capricorni* off the western shore of Summerland Point was 176.4 mm, with averages ranging from 83.7 mm at T2 to 292.6 mm at T5. The average leaf length of *Zostera capricorni* along Sugar Bay was 220 mm, with averages ranging from 53.4 mm at S8 to >400 mm at transects S1, S2 and S3. The average leaf length of *Zostera capricorni* along Bardens Bay was 183.1 mm, with averages ranging from 104.4 mm at A6 to 266.9 mm at A4. The average length of *Zostera capricorni* off Crangan Bay was 85.8 mm, with averages from 70.5 mm at transect C1 to 98.6 mm at C4 (Table 6A.1).

The short-leaf growth form of *Zostera capricorni* is likely an adaptation to sea and weather conditions. The seagrass beds in the study area are subjected to frequent moderate wind and wave action. Wind and wave action has the potential to cause physical damage to the plants, especially those with very long leaves in shallow waters and unprotected environments. Short-leaved *Zostera capricorni* seem better adapted to these weather conditions.

The sediments in the water column following rainfall events and the redistribution of sand from the sea floor due to strong currents, wind and wave action can result in the deposition of sediments onto seagrass beds. Seagrasses, especially those with a short-leaf growth form, are at risk of being smothered under these conditions which can reduce the extent and percentage cover of seagrasses.

Rainfall, wind and wave action can also increase water turbidity. Water turbidity reduces light penetration and can cause stress to the seagrasses by affecting photosynthesis. Short-leaved seagrasses that are normally closer to shore may be better adapted to periodic high turbidity.

Table 6A.1 Average leaf length in millimeters of *Zostera capricorni*, June 2025

Chain Valley Bay

	E1	E2	E3	E4	L1	E5	E6	E8	E9
Average leaf length (mm)	208.3	130.2	252.5	149.7	288.4	124.9	185.2	228.4	184.4

	E10	E11	E12	E13	E14	E15	E16	Average
Average leaf length (mm)	148.2	185.3	122.7	171.7	150.0	137.0	312.8	175.4

Northern Shore Summerland Point and Frying Pan Bay

	C5	C6	F1	F2	F3	F4	F5	F6	F7	Average
Average leaf length (mm)	160.0	138.1	220.3	278.8	108.6	105.3	41.7	29.5	35.6	124.2

Western Shore Summerland Point

	E7	T1	T2	T3	T4	T5	T6	T7	T8	Average
Average leaf length (mm)	148.4	110.0	83.7	92.9	136.9	292.6	181.0	211.32	331.1	176.4

Sugar Bay

	S1	S2	S3	S4	S5	S6	S7	S8	S9	Average
Average leaf length (mm)	>400	>400	>400	107.1	195.0	86.4	279.0	53.4	59.5	220.0

Bardens Bay

	A1	A2	A3	A4	A5	A6	Average
Average leaf length (mm)	209.7	211.0	192.9	266.9	113.9	104.4	183.1

Crangan Bay

	C1	C2	C3	C4	Average
Average leaf length (mm)	70.5	85	98.6	88.9	85.8

B. Fouling

Seagrasses provide a substrate for algae, which can have positive and negative effects on the seagrasses depending on the extent of fouling. In this study, fouling is described as Light (Level 0), Moderate (Level 1) or Heavy (Level 2) (Plates A.2- A.7, Appendix A).

In June 2025, 48 of the 53 transects had seagrasses that were lightly fouled by algae. Four transects had light to moderate fouling (L1, E15, E16 and S9) and one transect (F2) had some seagrasses that were heavily fouled (Appendix C).

The condition of the seagrasses in the study area were in fair to good condition at the time of sampling. Some seagrasses (L1, E6) showed signs of stress due to poor water clarity, turbidity and wave action.

C. Coverage

In June 2025, two species of seagrass were identified in the study area, *Zostera capricorni* and *Halophila ovalis* (Plate A.1). *Zostera capricorni* was found along the length of the transects. *Halophila ovalis* was found predominantly in shallower waters and nestled amongst less dense patches of *Zostera capricorni*. The findings were as follows:

- Chain Valley Bay had slightly lower percentage coverage of total seagrass compared to the other regions at the time of the survey. The transects with the lowest coverage of seagrass were E14 (30.3%), E6 (52.5%), L1 (65.8%) and E5 (68%).
 - The average total seagrass coverage along Chain Valley Bay was 78.7%, with ranges from 30.3% at E14 to 94.0% at E3 (Table 6C.1).
 - The average total seagrass coverage along the northern shore of Summerland Point and Frying Pan Bay was 83.7%, with ranges from 71.9% at F5 to 93.4% at F3 (Table 6C.2).
 - Along the western shore of Summerland Point the average total seagrass coverage was 83.8%, with ranges from 78.0% at T2 to 90.8% at T7 (Table 6C.3).
 - The average total seagrass coverage along Bardens Bay was 81.5%, with ranges in percentage cover from 69.3% at A1 to 91.5% at A3 (Table 6C.4).
 - Sugar Bay and Sunshine had an average total seagrass coverage of 87.1%, with ranges from 71.4% at S6 and 96.3% at S1 (Table 6C.5).
 - The total average seagrass coverage off Crangan Bay was 87.1%, with ranges from 77.2% at C1 to 91.5% at C2 (Table 6C.6).

- At the time of the survey, Chain Valley Bay had the lowest percentage coverage of *Zostera capricorni* compared to the other regions.
 - The average coverage of *Zostera capricorni* along Chain Valley Bay was 76.0%, with the lowest coverages of *Zostera* at E14 (26.4%) and E6 (48.9%) and the highest coverages of *Zostera capricorni* at transects E9 (93.7%), E2 (92.9%) and E8 (90.4%) (Table 6C.1).
 - The average percentage coverage of *Zostera capricorni* along the northern shore of Summerland Point and Frying Pan Bay was 82.4%, with ranges from 70.4% at transect F5 to 91.4% at transect F1 (Table 6C.2).
 - Along the western shore of Summerland Point the average coverage of *Zostera* was 82.2%, with the lowest coverage at transects T2 (76.1%), T1 (76.8%) and T5 (78.5%) and the highest coverage of *Zostera* at T7 (90.1%), T8 (87.8%) and T4 (86.9%) (Table 6C.3).
 - Along Bardens Bay the average coverage of *Zostera capricorni* was 78.5%, with ranges from 67.1% at transect A6 to 91.5% at transect A3 (Table 6C.4).

- Sugar Bay and Sunshine had an average coverage of *Zostera capricornia* of 84.5%. The lowest percentage cover was at S6 (68.9%) and the highest was at S1 (96.2%) (Table 6C.5).
- At the time of the survey, the average coverage of *Zostera* was 84.9% at Crangan Bay, with the lowest percentage cover at C1 (72.1%) and the highest at C2 (90.8%) (Table 6C.6).
- *Halophila* was found growing close to shore throughout the study area. The transects with the highest percentage coverage of *Halophila ovalis* were E4 (19.6%), A6 (8.8%), S9 (7.6%), A5 (6.8%), T1 (5.5%) and S2 (5.4%).
- Six species of alga were recorded within the transects during the June 2025 survey, namely *Cystoseira trinodis* (synonym *Cystophyllum onustum*), *Sargassum* sp, *Codium fragile*, *Corallina officinalis*, *Caulerpa taxifolia* and free-floating sea lettuce (Ulvaceae). The invasive marine algae *Caulerpa taxifolia*, *Codium fragile* and *Ulva* were rarely encountered during this survey.
 - The transects with the highest percentages of *Cystoseira trinodis* were C1 (5.2%), E4 (4.6%), F2 (2.0%) and E1 (1.9%).
 - *Codium* was observed within transect E9 only.
 - The transects with the highest percentage coverage of other algal species (predominantly *Sargassum*) were E12 (3.2%), A2 (2.1%) and A1 (1.8%) (Table 6C.1).
- The percentage of bare ground or area not occupied by seagrass has increased throughout the study area since 2024 (Appendix C, Table C.2).
 - The average percentage of bare ground along the transects located off Chain Valley Bay was 20.5%. The highest percentages of bare ground were located at transects E14 (69.7%), L1 (34.1), E15 (22.9%) and E16 (16.2%) (Table 6C.1).
 - Along the northern shore of Summerland Point and Frying Pan Bay the average percentage of bare ground was 15.7%. The highest percentages of bare ground were at transects F5 (28.1%), F7 (20.7%), F2 (19.5%), F4 (19.3%) and C6 (19.0%) (Table 6C.2).
 - Along the western shore of Summerland Point the average percentage of bare ground or area not occupied by seagrasses was 16%. The transects with the highest

percentage of bare ground were T2 (21.7%), T5 (20.7%), E7 (19.1%), T6 (18.7%) and T1 (16.6%) (Table 6C.3).

- The average percentage of bare ground along Bardens Bay was 16.3%, with the highest percentage of bare ground at transects A1 (23.6%), A6 (22.5%), A5 (18.7%) and A2 (13.5%) (Table 6C.4).
- Along Sugar Bay and Sunshine the average percentage of bare ground was 12.6%. The transects with the highest percentage of bare ground were S6 (27.6%), S5 (20.2%), S7 (20.1%) and S9 (19.6%) (Table 6C.5).
- The average percentage of bare ground along the transects off Crangan Bay was 10.4%. Transects C1 and C3 had the highest percentages of bare ground, 14.0% and 10.0% respectively (Table 6C.6).

Table 6C.1 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									
<i>Zostera</i>	78.5	82.1	92.9	66.2	62.8	67.0	48.9	90.4	93.7
<i>Halophila</i>	4.7	1.3	1.1	19.6	3.0	1.0	3.6	1.1	0.5
Total	83.2	83.5	94.0	85.8	65.8	68.0	52.5	91.5	94.2
Algae									
<i>Cystoseira</i>	1.9	0.8	0.0	4.6	0.1	0.1	0.2	0.0	0.7
<i>Codium</i>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	1.9	0.8	0.0	4.6	0.1	0.1	0.2	0.0	0.8
Bare ground	14.9	15.8	6.0	9.6	34.1	31.9	47.2	8.5	5.0

Percent Area	E10	E11	E12	E13	E14	E15	E16	Average
Seagrasses								
<i>Zostera</i>	89.2	91.1	81.3	86.0	26.4	75.4	83.6	76.0

<i>Halophila</i>	0.6	0.0	1.5	0.5	3.9	1.5	0.1	2.8
Total	89.8	90.8	82.8	86.5	30.3	77.0	83.7	78.7
Algae								
<i>Cystoseira</i>	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.5
<i>Codium</i>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other	0.0	0.0	3.2	0.0	0.0	0.0	0.0	0.2
Total	0.0	0.0	3.2	0.1	0.0	0.1	0.1	0.8
Bare ground	10.2	9.2	14.0	13.5	69.7	22.9	16.2	20.5

Table 6C.2 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	Average
Seagrasses										
<i>Zostera</i>	91.1	78.8	91.4	78.3	92.7	79.7	70.4	85.0	74.3	82.4
<i>Halophila</i>	0.6	0.0	0.2	0.1	0.7	1.0	1.4	2.5	4.9	1.3
Total	91.7	78.8	91.6	78.4	93.4	80.7	71.9	87.5	79.3	83.7
Algae										
<i>Cystoseira</i>	0.0	1.2	0.1	2.0	0.0	0.0	0.0	0.0	0.0	0.4
<i>Codium</i>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other algae	0.0	1.0	0.0	0.1	0.7	0.0	0.0	0.0	0.0	0.2
Total	0.0	2.2	0.1	2.1	0.7	0.0	0.0	0.0	0.0	0.6
Bare ground	8.3	19.0	8.3	19.5	5.9	19.3	28.1	12.5	20.7	15.7

Table 6C.3 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	Average
Seagrasses										
<i>Zostera</i>	79.6	76.8	76.1	84.8	86.9	78.5	79.6	90.1	87.8	82.2
<i>Halophila</i>	1.3	5.5	1.9	0.6	0.8	0.7	1.8	0.7	0.8	1.6
Total	80.9	82.3	78.0	85.4	87.6	79.1	81.3	90.8	88.6	83.8
Algae										
<i>Cystoseira</i>	0.0	0.3	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.1
<i>Codium</i>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other	0.0	0.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total	0.0	1.0	0.2	0.0	0.1	0.1	0.0	0.0	0.0	0.2
Bare ground	19.1	16.6	21.7	14.6	12.2	20.7	18.7	9.2	11.4	16.0

Table 6C.4 Average percent area cover of substratum by seagrasses and algae – Bardens Bay

Percent Area	A1	A2	A3	A4	A5	A6	Average
Seagrasses							
<i>Zostera</i>	69.2	83.3	91.5	86.2	73.8	67.1	78.5
<i>Halophila</i>	0.1	0.0	0.0	2.2	6.8	8.8	3.0
Total	69.3	83.3	91.5	88.3	80.6	75.8	81.5
Algae							
<i>Cystoseira</i>	5.2	1.0	0.4	0.0	0.5	1.6	1.5
<i>Codium</i>	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other	1.8	2.1	0.3	0.0	0.2	0.1	0.8
Total	7.1	3.2	0.7	0.0	0.7	1.6	2.2
Bare ground	23.6	13.5	7.8	11.7	18.7	22.5	16.3

Table 6C.5 Average percent area cover of substratum by seagrasses and algae – Sugar Bay and Sunshine

Percent Area	S1	S2	S3	S4	S5	S6	S7	S8	S9	Average
Seagrasses										
<i>Zostera</i>	96.2	89.0	95.0	90.8	77.7	68.9	77.7	91.9	73.3	84.5
<i>Halophila</i>	0.1	5.4	0.2	0.3	1.9	2.7	2.1	3.4	7.6	2.6
Total	96.3	94.4	95.2	91.1	79.6	71.4	79.9	95.3	80.4	87.1
Algae										
<i>Cystoseira</i>	0.9	0.0	0.0	0.0	0.1	0.7	0.0	0.1	0.0	0.2
<i>Codium</i>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other	0.4	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.1
Total	1.3	0.0	0.0	0.0	0.1	1.0	0.0	0.1	0.0	0.3
Bare ground	2.4	5.6	4.8	8.9	20.2	27.6	20.1	4.6	19.6	12.6

Table 6C.6 Average percent area cover of substratum by seagrasses and algae – Crangan Bay

Percent Area	C1	C2	C3	C4	Average
Seagrasses					
<i>Zostera</i>	72.1	90.8	88.5	88.2	84.9
<i>Halophila</i>	5.1	0.7	1.4	1.4	2.2
Total	77.2	91.5	89.9	89.6	87.1
Algae					
<i>Cystoseira</i>	8.5	0.7	0.1	0.5	2.5
<i>Codium</i>	0.0	0.0	0.0	0.0	0.0
Other	0.3	0.0	0.0	0.0	0.1
Total	8.8	0.7	0.1	0.5	2.5
Bare ground	14.0	7.7	10.0	9.9	10.4

Figures 6C.1 to 6C.6 show annual changes in percentage cover of seagrasses in the study area. Numerical values are presented in Appendix C. Seagrass cover has decreased throughout the study area. Comparisons between the annual seagrass surveys of 2024 and 2025 show a decrease in percentage cover of seagrasses at:

- Thirteen out of sixteen transects in Chain Valley Bay (Figure 6C.1).
- Seven out of nine transects along the northern shore of Summerland Point and Frying Pan (Figure 6C.2).
- Six out of nine transects off the western shore of Summerland Point (Figure 6C.3).
- Five out of seven transects in Bardens Bay (Figure 6C.4).
- Three out of six transects along Sugar Bay and Sunshine (Figure 6C.5); and
- There was a slight decrease in percentage cover of seagrasses at all four transects in Crangan Bay (Figure 6C.6).

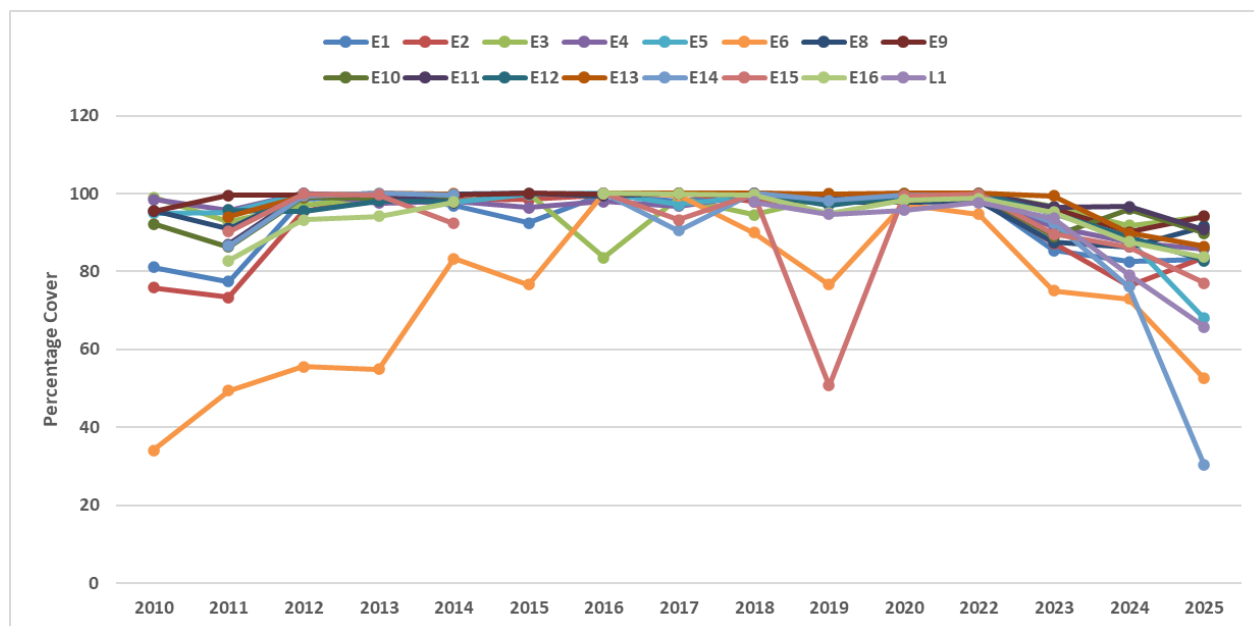


Figure 6C.1 Changes in percentage cover of seagrasses along Chain Valley Bay (2010-2025)

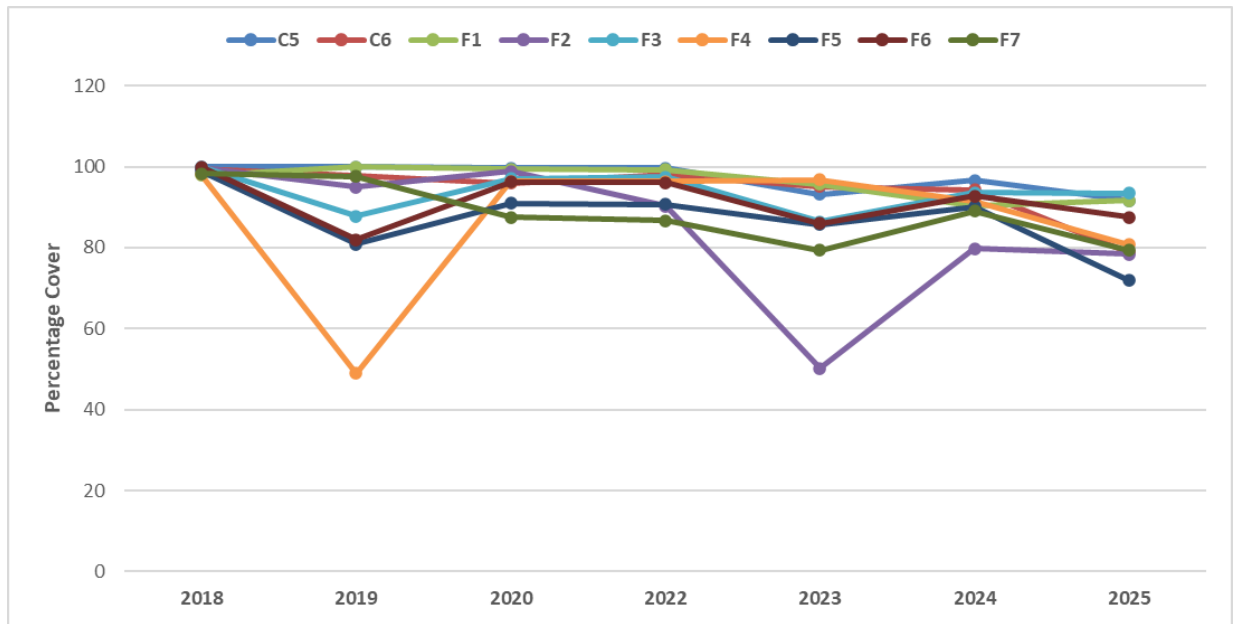


Figure 6C.2 Changes in percentage cover of seagrasses along northern shore Summerland Point and Frying Pan Bay (2018-2025)

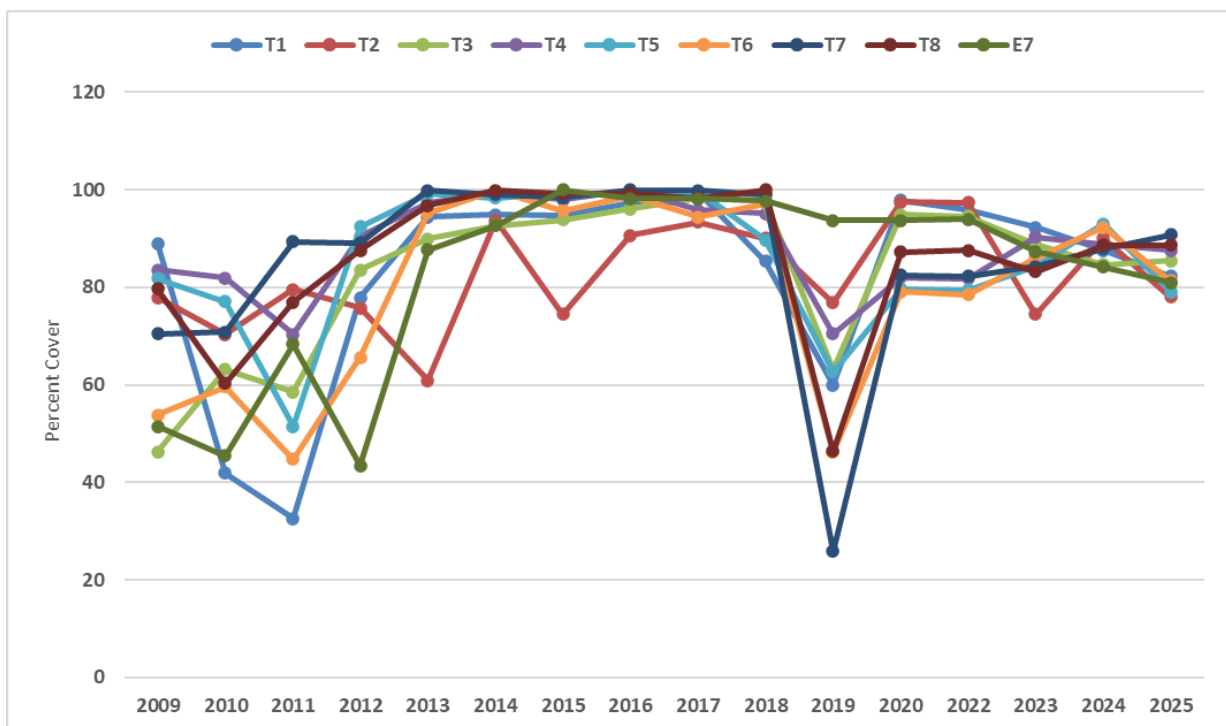


Figure 6C.3 Changes in percentage cover of seagrasses along western shore Summerland Point (2009-2025)

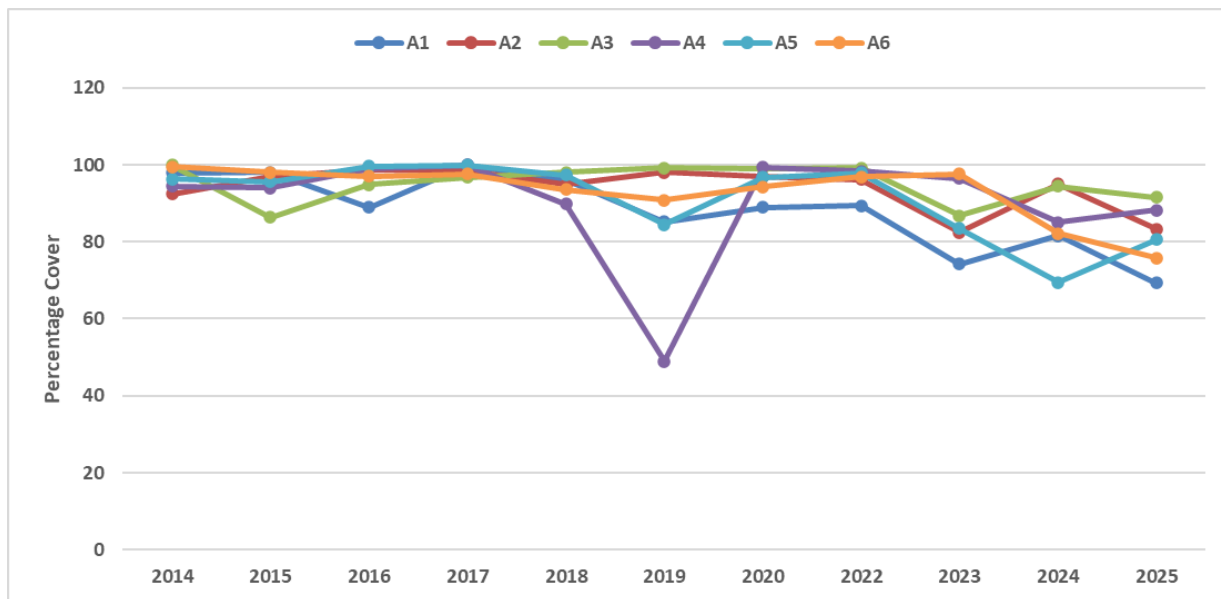


Figure 6C.4 Changes in percentage cover of seagrasses along Bardens Bay (2014-2025)

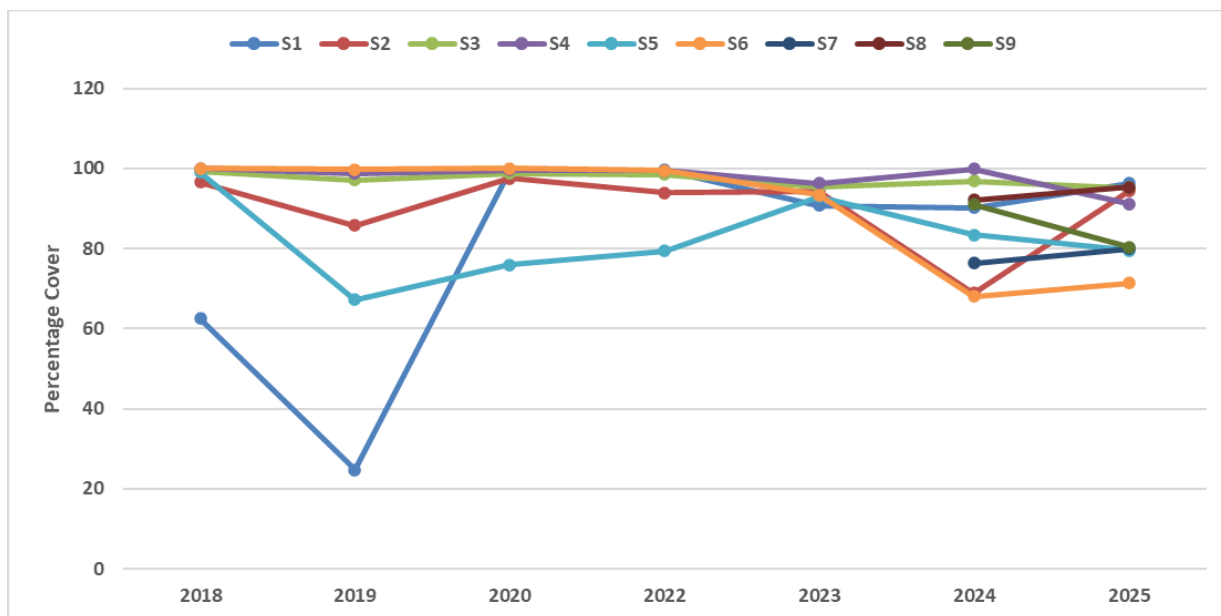


Figure 6C.5 Changes in percentage cover of seagrasses along western shore Sugar Bay and Sunshine (2018-2025)

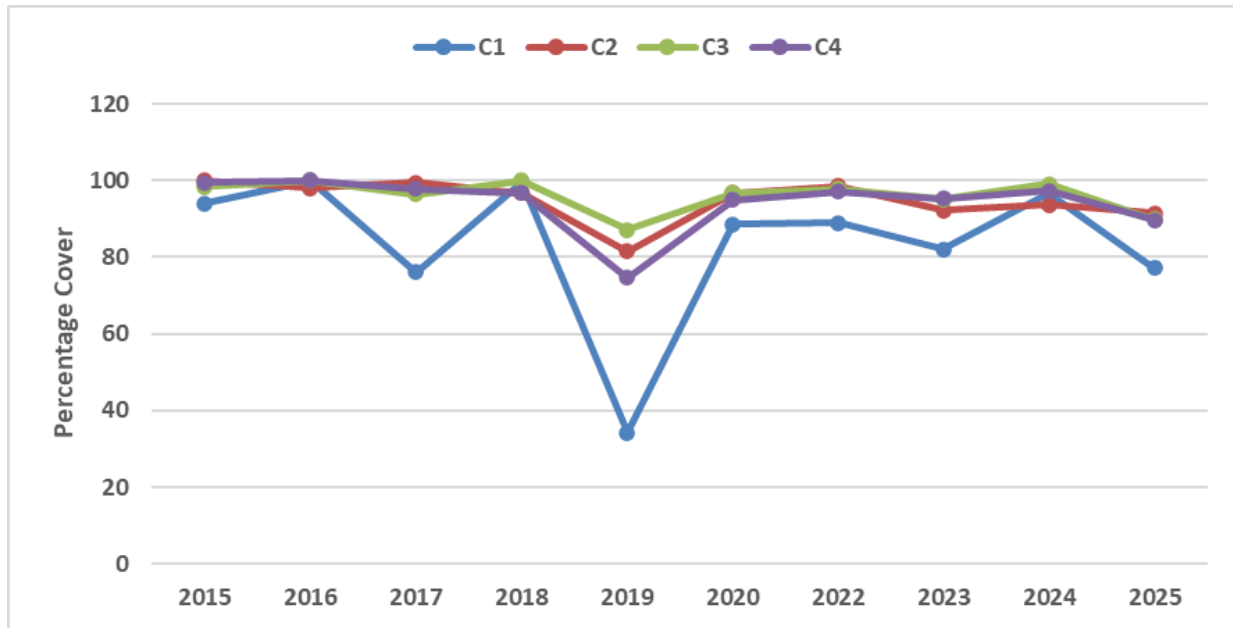


Figure 6C.6 Changes in percentage cover of seagrasses along Crangan Bay (2015-2025)

Factors that can result in a decline in seagrass coverage include:

- Deposition of fine sediment on seagrass beds due to prolonged wind and wave action and rainfall events (Plate 6C.1). Seagrasses being covered by sediment and being smothered were observed at Transects E1, E2, E4, E5, E6, E16, T1, A5, F4, F7, S6, S7 and L1 during the June 2025 survey. Direct sedimentation effects are recognized as the major threat to seagrass growth and survival. Tolerance to burial varies amongst species, however studies have shown that fine sands and muds (<250µm) have the strongest suppression effects (Benham et al., 2019). Shoot density declines significantly at burial depths of 5-7.5 mm in a mesocosm setting, with very low levels of growth observed above 10 mm or greater (Benham et al., 2019). At the time of the survey, weather conditions were also causing sand redistribution, affecting the outer extents of some seagrass beds (Transects E14, E5 and E6).
- The presence of mussels amongst the seagrass beds (Plate 6C.2). At the time of survey mussel clumps were observed at transects E1, E2, E3, E4, T1, T2, T3, T4, T5, A1, A2, A6, F2, S5, S6, C1, C5 and C6. Whilst an important part of the ecological community, the

presence of mussels does have the effect of reducing the percentage cover of *Zostera capricorni* along those transects.

- Increased boating activity. During weekends and school and public holidays, boating activities on Lake Macquarie tend to increase. This often has a negative impact on seagrasses. Beaches become staging areas where various watercraft such as canoes, kayaks and small outboard motor vessels are launched or disembarked. Anchors and the hulls of vessels plow the seagrass beds reducing seagrass cover. Damage to seagrass beds caused by boating activities were observed at transects E1, E5, E16, C1, S1, S2, S3, and S7 during the June 2025 survey.
- Decline in salinity concentrations in Lake Macquarie from an average of 37.16 ppt in June 2023 to 28.54 ppt in June 2025. Heavy continuous rain can cause sudden stress reactions in seagrasses followed by slow recovery. A decrease in salinity is a stress factor that induces physiological responses and alters quantifiable features of seagrass population structure, biomass, morphometry and productivity (Chollett et al., 2007). Reduced salinity can cause seagrass leaves to die and seagrass beds to reduce their total biomass through defoliation. Mats of severed seagrass leaves were observed at transect E16 and T2. This may be evidence of seagrass response to reductions in the concentration of salinity in Lake Macquarie due to frequent rainfall events.
- Increase in percentage cover of filamentous algae (Plate 6C.4). Mats of free-floating filamentous algae have been observed in previous surveys. These mats can cover underlying seagrasses and bare ground, affecting the statistics. Thick filamentous algal mats can also have the additional capacity of reducing the ability of underlying seagrasses to photosynthesize. This could result in an actual decrease in seagrass coverage along these transects. Thick mats of filamentous algae were not present along the seagrass transects during the June 2025 survey.
- Increase in percentage cover of *Cystoseira trinodis* and *Sargassum*. During the June 2024 survey, an increase in percentage cover of *Cystoseira* was recorded at several transects including E1, E2, E4 and E5. Whilst an important part of the ecological community, the presence of algae does have the effect of reducing the percentage cover of *Zostera capricorni* along those transects. High percentage cover of algae was not a factor in this survey.

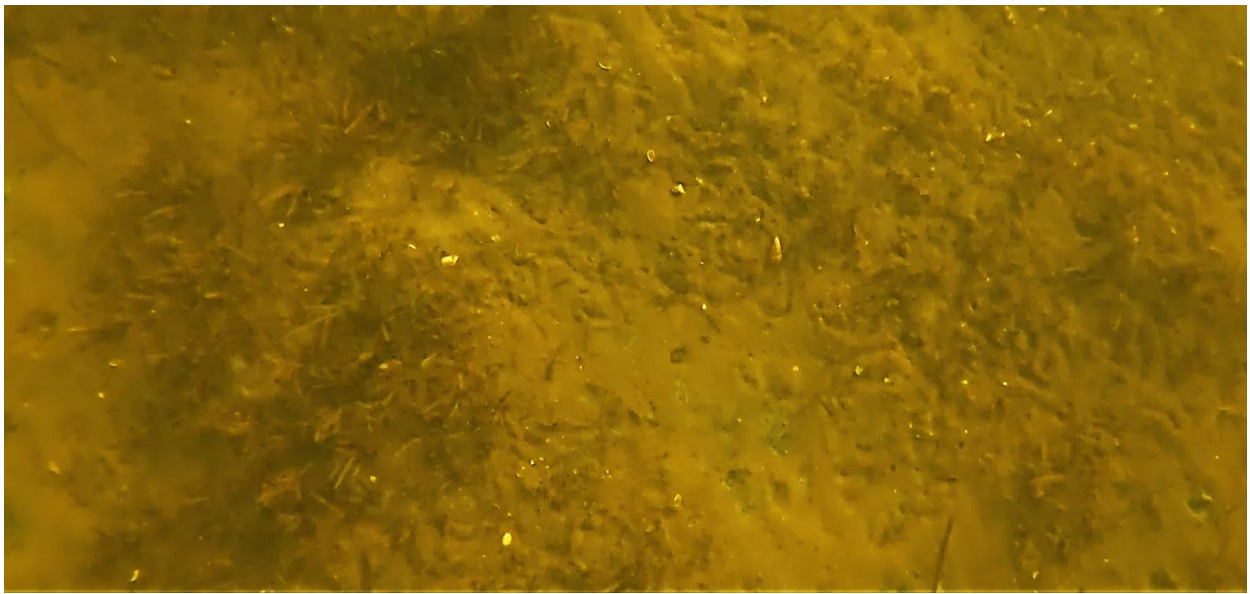
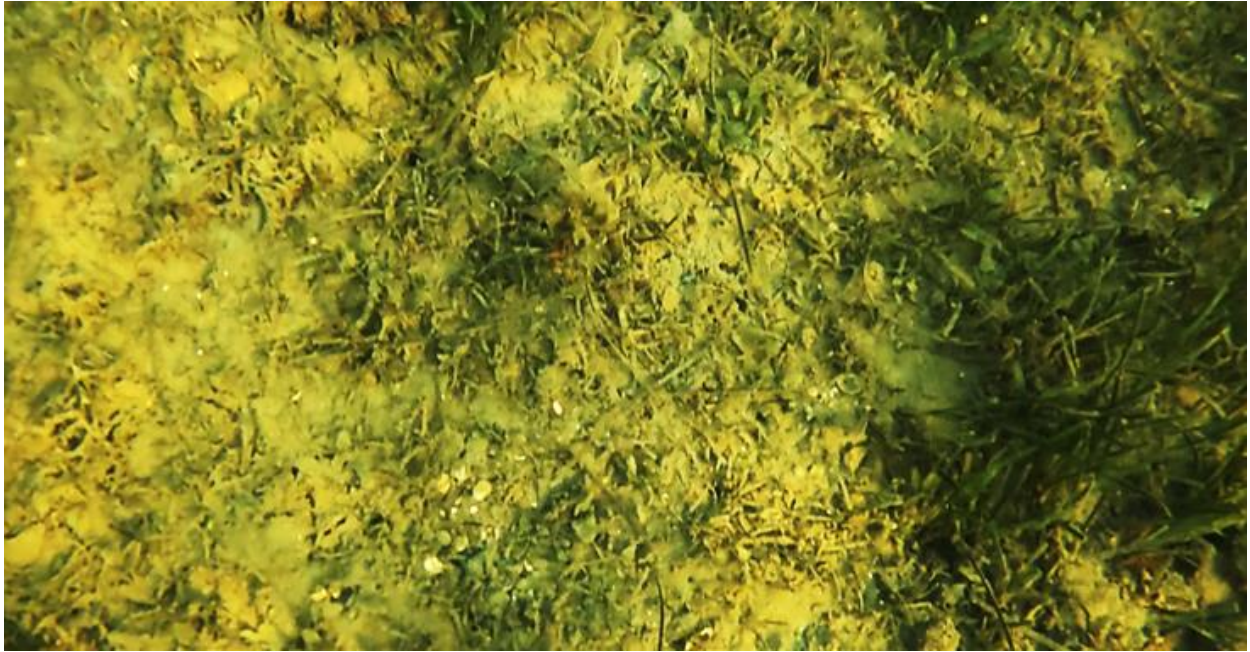


Plate 6C.1 *Zostera capricorni* covered by fine sediment and being suppressed following strong winds (Transect S6 above, Transect E14 below – Seagrass survey 2025)

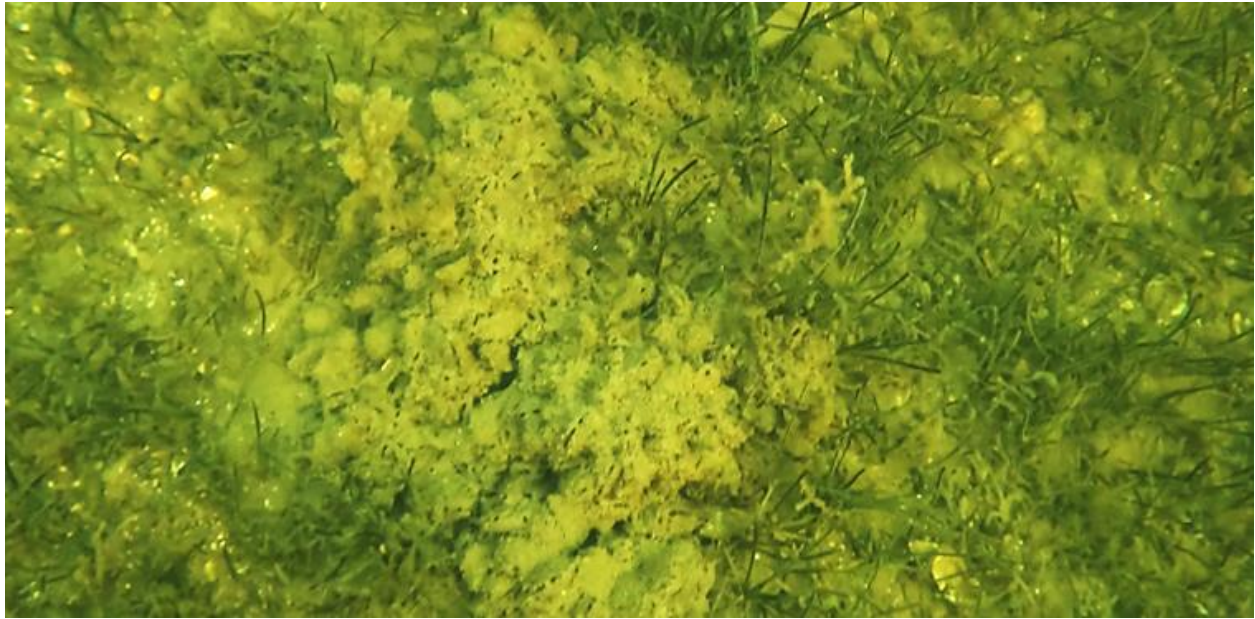


Plate 6C.2 Presence of mussels amongst the seagrass beds (Transect S6 – 2025)



Plate 6C.3 Seagrass bed damaged by boating activities (Transect T6 - 2025)



Plate 6C.4 Filamentous algal mats covering underlying seagrasses (Cams Wharf 2024)

D. Composition of seagrass beds

In June 2025, there was no evidence that underground mining activities were impacting the composition of seagrass species in the study area. The composition and distribution of seagrass species growing within the transects were consistent with previous seagrass surveys conducted from 2023 to 2024 (Figures 6D.1 and 6D.6). The percentage cover of *Zostera capricorni* and *Halophila ovalis* within each transect and region did not vary greatly over time.

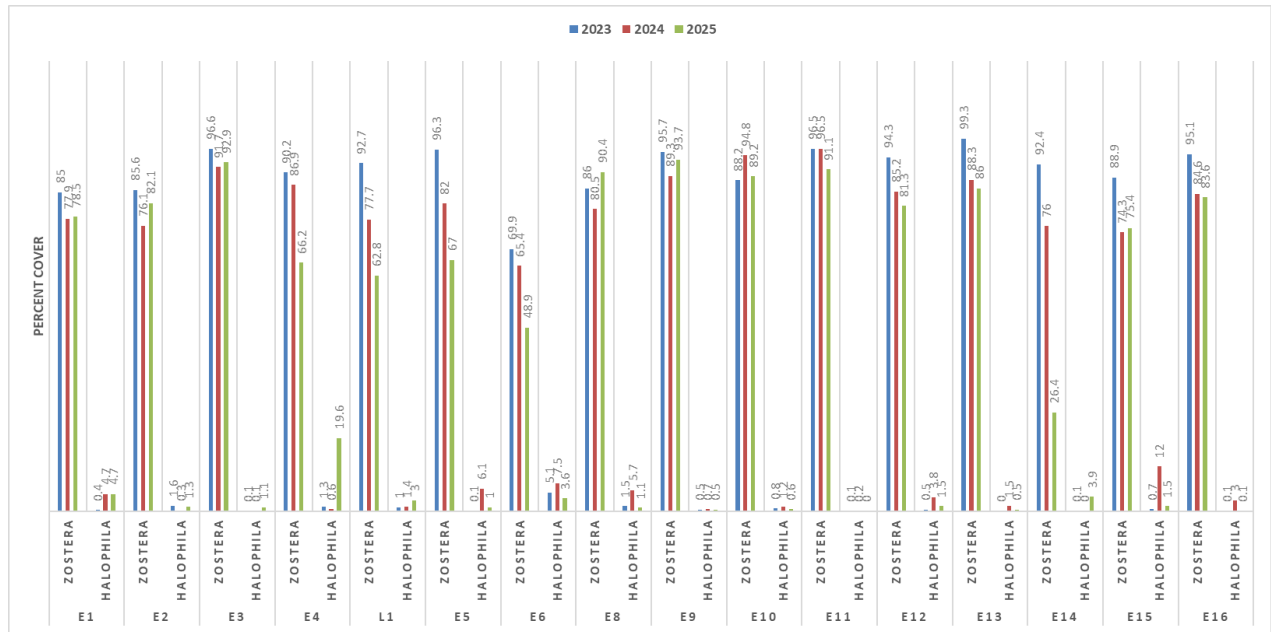


Figure 6D.1 Changes in percentage cover of *Zostera capricorni* and *Halophila ovalis* along Chain Valley Bay (2023-2025) – Impact Transects

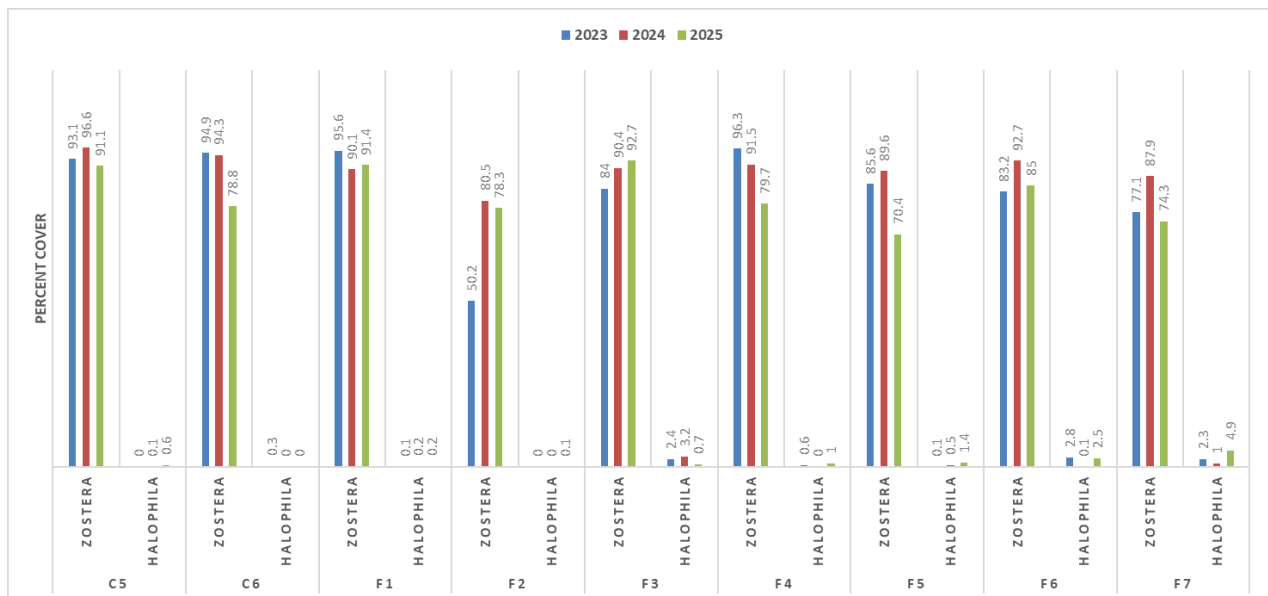


Figure 6D.2 Changes in percentage cover of *Zostera capricorni* and *Halophila ovalis* along the northern shore of Summerland Point and Frying Pan Bay (2023-2025) – Control and Impact Transects

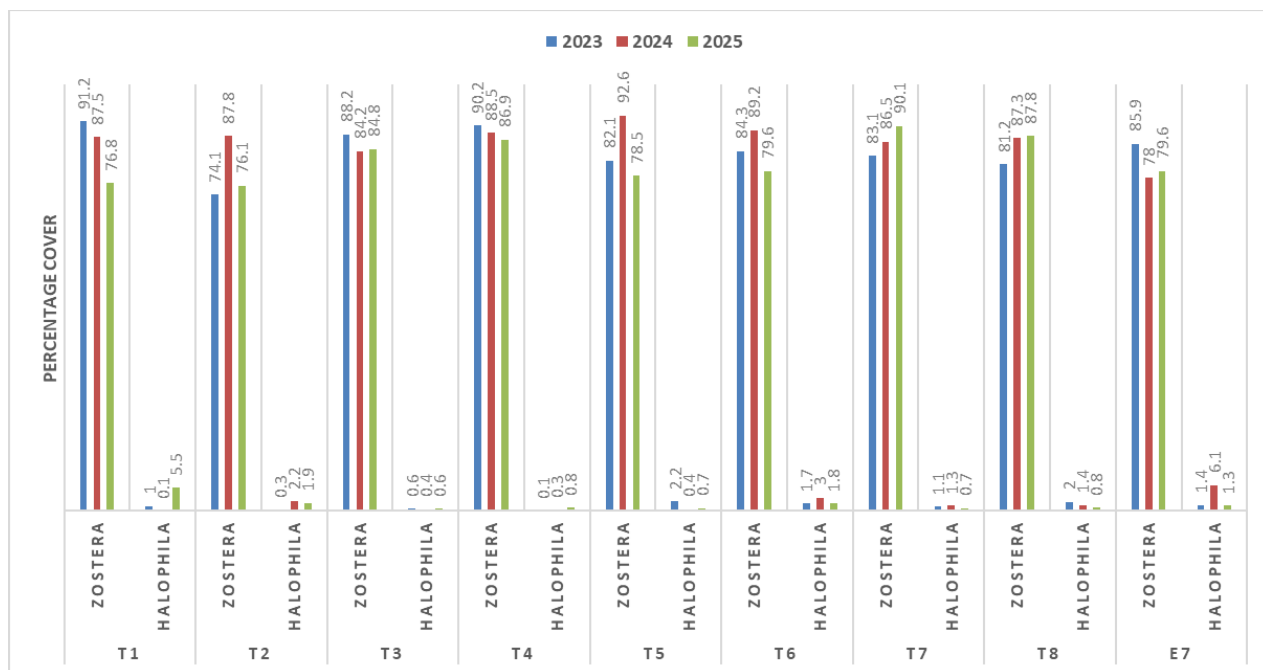


Figure 6D.3 Changes in percentage cover of *Zostera capricorni* and *Halophila ovalis* along the western shore of Summerland Point (2023-2025) – Impact Transects

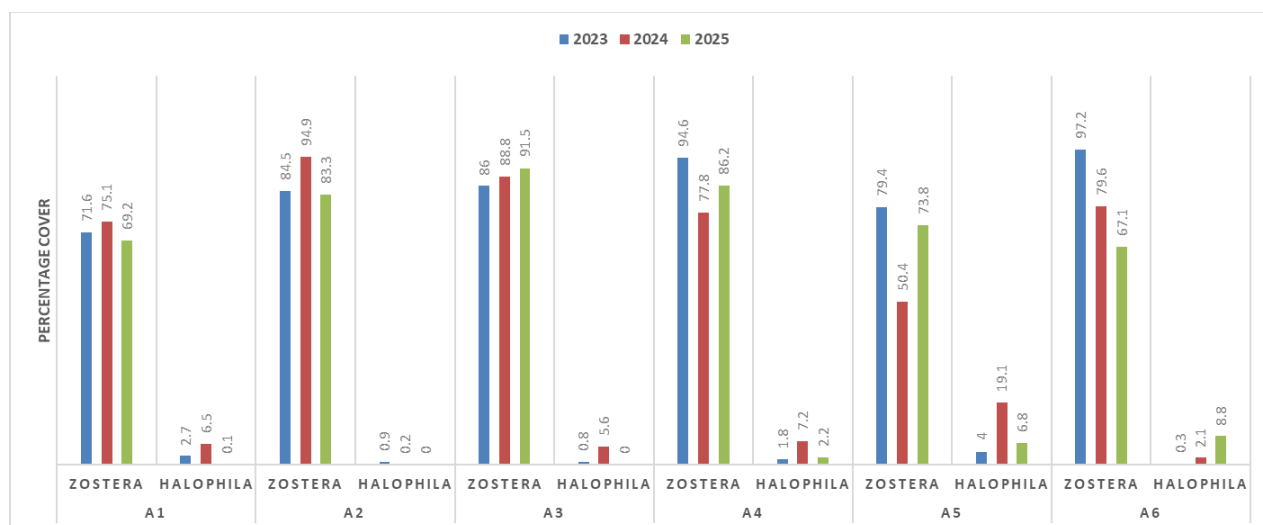


Figure 6D.4 Changes in percentage cover of *Zostera capricorni* and *Halophila ovalis* along Bardens Bay (2023-2025) – Impact Transects

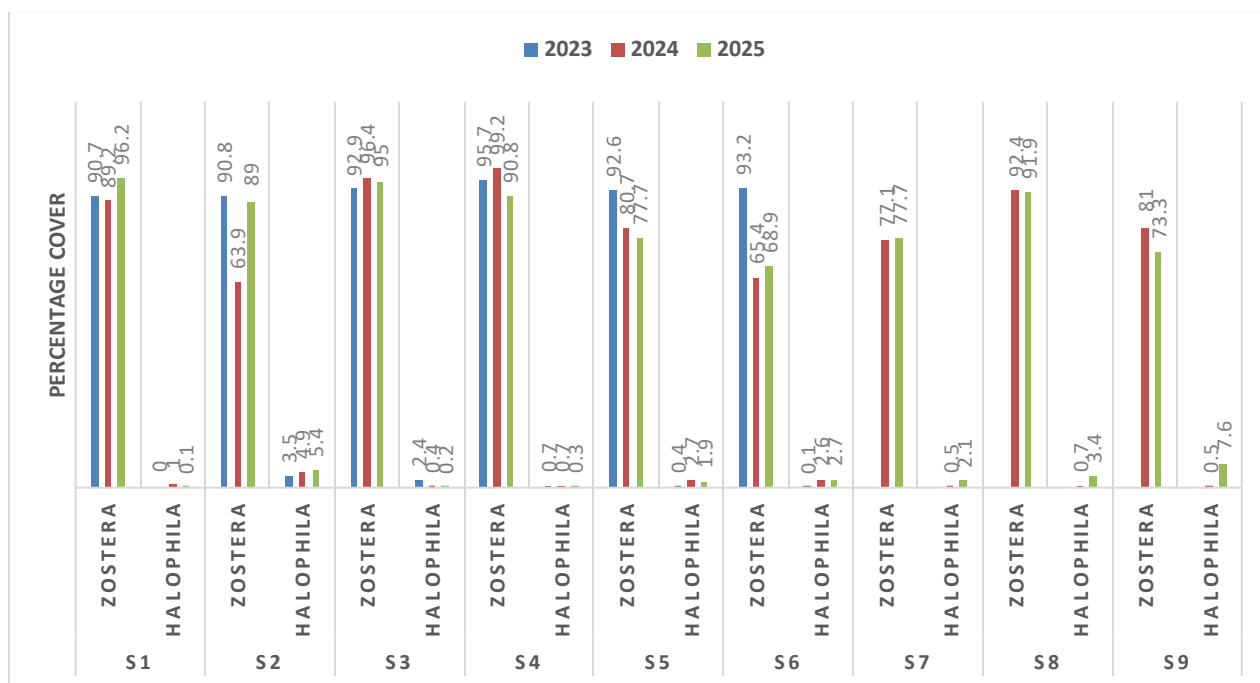


Figure 6D.5 Changes in percentage cover of *Zostera capricorni* and *Halophila ovalis* along Sugar Bay and Sunshine (2023-2025) – Impact Transects

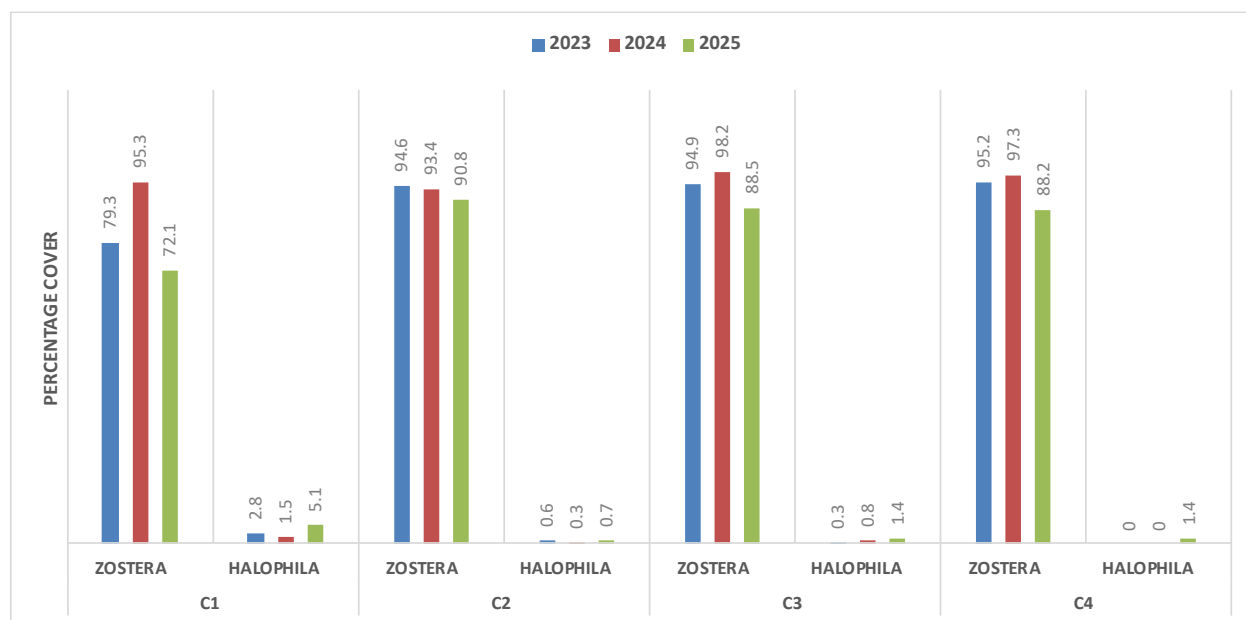


Figure 6D.6 Changes in percentage cover of *Zostera capricorni* and *Halophila ovalis* along Crangan Bay (2023-2025) – Control Transects

E. Seagrass Extents

Table 6E.1 provides the location of the inner and outer edge of each seagrass transect by eastings and northings using GDA2020 datum. It also shows the approximate length of each transect. At the time of the survey, there was no evidence that mining operations were having a deleterious effect on the size, distribution and extent of seagrasses along the transects.

The average length of the transects were approximately 69m off Chain Valley Bay, 60m along the northern shore of Summerland Point and Frying Pan Bay, 40m along the western shore of Summerland Point, 27m along Bardens Bay, and 55m along Sugar Bay and Sunshine. The average length of the transects in Crangan Bay was approximately 39m. The transects with the longest lengths were E9 (153m), F2 (130m) and S4 (105m), and the transects with the shortest lengths were C1, C2 and C6 (approximately 13m).

At the time of the survey there were minimal differences to the extent of seagrass beds in the study area. An exception to this was transect E14 where sea floor sand had been deposited on the seagrass beds decreasing the length of the transect.

Table 6E.1 Coordinates of inner and outer ends of seagrass transects in Chain Valley Bay

Transect No.	Easting	Northing	Transect No.	Easting	Northing	Transect Length (m)
E1 inner	363985	6331796	E1 outer	364031	6331812	77.14
E2 inner	364035	6331701	E2 outer	364076	6331716	75.00
E3 inner	363953	6331404	E3 outer	364027	6331417	75.09
E4 inner	364220	6331078	E4 outer	364259	6331122	59.30
L1 inner	364292	6330367	L1 outer	364304	6330399	20.00
E5 inner	365005	6330163	E5 outer	365034	6330225	67.45
E6 inner	365118	6329788	E6 outer	365174	6329802	57.97
E8 inner	365128	6331795	E8 outer	365096	6331811	35.36
E9 inner	365040	6331607	E9 outer	364913	6331523	152.68
E10 inner	365422	6331427	E10 outer	365394	6331361	71.01
E11 inner	365554	6331410	E11 outer	365524	6331343	73.21
E12 inner	365749	6331328	E12 outer	365735	6331284	46.22
E13 inner	365990	6331278	E13 outer	365970	6331190	89.54
E14 inner	366447	6331046	E14 outer	366397	6331018	77.14

E15 inner	366657	6330098	E15 outer	366610	6330167	82.85
E16 inner	366310	6329644	E16 outer	366272	6329666	44.26

Table 6E.2 Coordinates of inner and outer ends of seagrass transects off northern shore Summerland Point and Frying Pan Bay

Transect No.	Easting	Northing	Transect No.	Easting	Northing	Transect Length (m)
C5 inner	365676	6333038	C5 outer	365702	6333084	41.57
C6 inner	366045	6332831	C6 outer	366058	6332870	13.67
F1 inner	366320	6333281	F1 outer	366285	6333249	47.11
F2 inner	366342	6333330	F2 outer	366290	6333450	130.55
F3 inner	366611	6333163	F3 outer	366621	6333228	65.64
F4 inner	366968	6333242	F4 outer	366918	6333285	65.04
F5 inner	367106	6333361	F5 outer	367068	6333421	70.46
F6 inner	367271	6333493	F6 outer	367202	6333522	74.81
F7 inner	367402	6333682	F7 outer	367374	6333694	30.47

Table 6E.3 Coordinates of inner and outer ends of seagrass transects along western shore Summerland Point

Transect No.	Easting	Northing	Transect No.	Easting	Northing	Transect Length (m)
E7 inner	385350	6332350	E7 outer	365297	6332344	52.44
T1 inner	365439	6333217	T1 outer	365442	6333264	47.48
T2 inner	365402	6333100	T2 outer	365388	6333100	14.39
T3 inner	365400	6332951	T3 outer	365384	6332949	16.32
T4 inner	365377	6332816	T4 outer	365357	6332831	25.14
T5 inner	365350	6332990	T5 outer	365309	6332575	49.14
T6 inner	365347	6332380	T6 outer	365300	6332337	63.53
T7 inner	365320	6332207	T7 outer	365267	6332206	52.90
T8 inner	365336	6332262	T8 outer	365295	6332270	42.36

Table 6E.4 Coordinates of inner and outer ends of seagrass transects in Bardens Bay.

Transect No.	Easting	Northing	Transect No.	Easting	Northing	Transect Length (m)
A1 inner	364006	6333892	A1 outer	364048	6333899	42.60
A2 inner	363979	6334006	A2 outer	364002	6334013	24.00
A3 inner	363918	6334157	A3 outer	363927	6334165	34.80
A4 inner	363633	6334426	A4 outer	363660	6334425	26.30

A5 inner	363686	6335068	A5 outer	363688	6335049	18.30
A6 inner	364434	6334566	A6 outer	364422	6334560	13.70

Table 6E.5 Coordinates of inner and outer ends of seagrass transects in Sugar Bay and off Sunshine.

Transect No.	Easting	Northing	Transect No.	Easting	Northing	Transect Length (m)
S1 inner	365009	6334470.41	S1 outer	365077	6334481	69.64
S2 inner	364642	6334943.57	S2 outer	364673	6334939	31.46
S3 inner	365017	6335008.93	S3 outer	365041	6334932	79.98
S4 inner	365235	6334992.86	S4 outer	365217	6334889	105.05
S5 inner	365575	6334709.08	S5 outer	365569	6334693	16.60
S6 inner	366161	6334766.00	S6 outer	366224	6334762	27.67
S7 inner	366076	6334917.00	S7 outer	366098	6334931	14.86
S8 inner	366061	6335422.00	S8 outer	366110	6335465	54.86
S9 inner	366035	6335723.00	S9 outer	366093	6335724	66.67

Table 6E.6 Coordinates of inner and outer ends of seagrass transects in Crangan Bay.

Transect No.	Easting	Northing	Transect No.	Easting	Northing	Transect Length (m)
C1 Inner	368596	6332235	C1 Outer	368616	6332250	13.64
C2 Inner	368619	6332147	C2 Outer	368658	6332151	13.84
C3 Inner	368524	6331811	C3 Outer	368538	6331806	90.91
C4 Inner	368467	6331435	C4 Outer	368486	6331421	37.50

F. Water Quality

The physical characteristics of the waters above the seagrass beds were measured on 6th and 12th June 2025 at each transect using a calibrated Yeo-Kal 618RU Analyser. Units of measurement were Temperature (Temp) - degrees Celsius; Conductivity (Cond) - mS/cm; Salinity (Sal) - parts per thousand; pH; Dissolved Oxygen - % saturation and mg/L; Oxidization Reduction Potential (ORP) – mV and Turbidity (Turb) - NTU.

The physical characteristics of the water at each transect are shown in Appendix B and were as follows:

- Water Temperature ranged from 15.66°C at C1 to 19.13°C at A5. Mean water temperature was 17.62°C.
- Conductivity ranged from 40.52 mS/cm at F4 to 46.95 mS/cm at A3. Mean conductivity was 44.23 mS/cm.
- Salinity ranged from 25.88 ppt at F4 to 30.50 ppt at A3. Mean salinity was 28.54 ppt.
- pH ranged from 7.57 at Transect A3 to 7.95 at Transect F4. Mean pH was 7.78.
- Dissolved oxygen (% saturation) ranged from 68.0% at E2 to 101.2% at C1. Mean dissolved oxygen was 87.4% saturation.
- ORP ranged from 389 mV at E1 and MSG7 to 565 mV at S9. Mean ORP was 443 mV.
- Turbidity ranged from 2.4 NTU at T4 to 19.8 NTU at S1. Mean turbidity was 5.75 NTU.

Table 6F.1 Physical characteristics of waters above seagrass transects, Lake Macquarie – 2025

Chain Valley Bay

Station	Temperature °C	Conductivity mS/cm	Salinity ppt	pH	Dissolved Oxygen % sat	Dissolved Oxygen mg/L	ORP mV	Turbidity NTU
E1	15.98	41.93	26.89	7.92	81.8	6.89	389	6.6
E2	18.64	46.68	30.3	7.67	68.0	5.31	398	5.4
E3	17.46	45.31	29.31	7.73	73.7	5.92	411	4.2
E4	18.15	45.9	29.74	7.66	70.5	5.57	421	4.1
L1	17.79	46.68	30.30	7.64	71.4	5.66	432	3.2
E5	16.84	43.36	27.91	7.85	87.3	7.16	432	3.0
E6	17.35	45.97	29.78	7.58	71.6	5.75	434	3.2
E8	16.97	43.44	27.96	7.88	91.4	7.48	434	4.9
E9	17.78	44.65	28.83	7.78	87.8	7.03	435	4.3
E10	18.13	46.02	29.82	7.66	81.7	6.46	437	4.9
E11	18.09	45.46	29.42	7.79	88.7	7.04	437	5.7
E12	18.18	45.97	29.79	7.66	80.3	6.34	439	5.1

E13	17.84	45.86	29.71	7.68	80.0	6.36	439	5.8
E14	17.25	45.32	29.31	7.71	82.8	6.68	440	4.1
E15	16.48	43.67	28.13	7.86	90.7	7.48	440	3.1
E16	16.55	43.86	28.26	7.82	85.3	7.02	436	3.6
Average	17.44	45.03	29.11	80.44	6.48	7.74	428	4.62
Min	15.98	41.93	26.89	67.80	5.33	7.58	389	3.00
Max	18.30	46.68	30.30	91.40	7.48	7.92	440	6.80

Northern Shore Summerland Point and Frying Pan Bay

Station	Temperature °C	Conductivity mS/cm	Salinity ppt	pH	Dissolved Oxygen % sat	Dissolved Oxygen mg/L	ORP mV	Turbidity NTU
C5	17.28	41.40	26.51	7.93	96.9	7.94	431	6.3
C6	16.98	41.16	26.34	7.93	96.2	7.94	432	4.6
F1	16.76	41.13	26.32	7.95	95.7	7.93	433	4.5
F2	17.22	41.08	26.28	7.93	95.8	7.87	431	4.9
F3	17.20	40.92	26.17	7.95	97.2	8.00	433	6.6
F4	16.67	40.52	25.88	7.95	95.4	7.94	434	4.6
F5	17.52	40.95	26.19	7.94	98.7	8.07	435	5.3
F6	17.56	41.25	26.40	7.92	99.2	8.09	435	4.9
F7	17.75	41.34	26.46	7.92	98.9	8.04	436	5.8
Average	17.22	41.08	26.28	7.94	97.11	7.98	433	5.28
Min	16.67	40.52	25.88	7.92	95.40	7.87	431	4.50
Max	17.75	41.40	26.51	7.95	99.20	8.09	436	6.60

Western Shore Summerland Point

Station	Temperature °C	Conductivity mS/cm	Salinity ppt	pH	Dissolved Oxygen % sat	Dissolved Oxygen mg/L	ORP mV	Turbidity NTU
E7	17.80	44.80	28.94	7.77	85.4	6.83	431	3.8
T1	17.49	42.08	26.99	7.86	93.5	7.61	431	5.2
T2	18.53	45.87	29.71	7.68	80.4	6.31	432	4.9

T3	18.54	45.98	29.79	7.67	80.5	6.31	431	5.5
T4	18.03	44.17	28.49	7.78	87.0	6.95	430	2.4
T5	17.62	44.87	28.99	7.77	86.1	6.91	432	5.6
T6	17.87	44.29	28.58	7.79	87.0	6.97	430	3.6
T7	17.71	44.67	28.85	7.88	91.5	7.33	430	3.8
T8	17.79	45.25	29.27	7.75	85.3	6.81	433	4.3
Average	17.93	44.66	28.85	7.77	86.30	6.89	431	4.34
Min	17.49	42.08	26.99	7.67	80.40	6.31	430	2.40
Max	18.54	45.98	29.79	7.88	93.50	7.61	433	5.60

Bardens Bay

Station	Temperature °C	Conductivity mS/cm	Salinity ppt	pH	Dissolved Oxygen % sat	Dissolved Oxygen mg/L	ORP mV	Turbidity NTU
A1	18.77	46.28	30.01	7.60	78.3	6.10	444	7.5
A2	18.59	46.41	30.10	7.61	77.8	6.08	444	13.1
A3	18.91	46.95	30.50	7.57	80.6	6.25	443	9.7
A4	18.56	46.20	29.95	7.65	86.3	6.76	443	8.6
A5	19.13	46.47	30.15	7.63	77.4	5.99	444	10.7
A6	19.11	46.55	30.21	7.58	73.1	5.66	442	6.2
Average	18.85	46.48	30.15	7.61	78.92	6.14	443	9.30
Min	18.56	46.20	29.95	7.57	73.10	5.66	442	6.20
Max	19.13	46.95	30.50	7.65	86.30	6.76	444	13.10

Sugar Bay and Sunshine

Station	Temperature °C	Conductivity mS/cm	Salinity ppt	pH	Dissolved Oxygen % sat	Dissolved Oxygen mg/L	ORP mV	Turbidity NTU
S1	18.15	44.06	28.41	7.87	98.2	7.82	441	19.8
S2	18.76	46.32	30.04	7.60	77.0	6.00	443	7.9
S3	18.07	45.46	29.42	7.7	83.5	6.62	442	8.9
S4	18.27	45.52	29.46	7.68	80.8	6.38	442	8.0

S5	18.12	44.4	28.65	7.83	92.6	7.37	440	5.8
S6	18.03	44.14	28.47	7.82	90.2	7.20	440	4.6
S7	17.31	41.47	26.56	7.95	100.6	8.24	438	4.5
S8	18.11	42.87	27.56	7.86	95.8	7.68	439	7.5
S9	15.93	45.09	29.15	7.82	96.1	7.96	565	4.7
Average	18.11	44.34	28.56	7.79	89.72	7.15	441	8.06
Min	17.31	41.47	26.56	7.60	77.00	6.00	438	4.50
Max	18.76	46.32	30.04	7.95	100.6	8.24	443	19.80

Crangan Bay

	Temperature °C	Conductivity mS/cm	Salinity ppt	pH	Dissolved Oxygen % sat	Dissolved Oxygen mg/L	ORP mV	Turbidity NTU
C1	15.66	43.66	28.12	7.86	101.0	8.47	532	4.7
C2	16.54	43.98	28.35	7.78	97.8	8.05	524	4.7
C3	16.26	43.44	27.96	7.80	100.3	8.31	519	5.8
C4	15.98	43.13	27.74	7.81	101.2	8.45	517	4.4
Average	16.11	43.55	28.04	7.81	100.1	8.32	523	4.9
Min	15.66	43.13	27.74	7.78	97.80	8.05	517	4.4
Max	16.54	43.98	28.35	7.86	101.2	8.47	532	5.8

All Stations

	Temperature °C	Conductivity mS/cm	Salinity ppt	pH	Dissolved Oxygen % sat	Dissolved Oxygen mg/L	ORP mV	Turbidity NTU
Average	17.62	44.23	28.54	7.78	87.40	7.05	443	5.75
Min	15.66	40.52	25.88	7.57	68.00	5.31	389	2.40
Max	19.13	46.95	30.50	7.95	101.20	8.47	565	19.80
Stdev	0.85	1.91	1.37	0.12	9.22	0.86	30.98	2.81

Rainfall in the months preceding the survey of June 2025 was 66.8 mm, 38.2 mm, 137.6 mm, 228 mm and 448 mm for January, February, March, April and May 2025 respectively (Cooranbong Lake Macquarie AWS No. 061412). By 12th June a further 6.4 mm had fallen in the catchment. The influx of freshwater into Lake Macquarie has reduced the salinity of Lake Macquarie from an

average of 37.16 ppt in June 2023, 34.39 ppt in September 2024, 31.32 ppt in May 2025 and 28.54 ppt in June 2025.

7. Discussion

Seagrasses perform several vital functions within marine ecosystems. They are a primary source of food for grazing animals like green sea turtles (*Chelonia mydas*) and dugong (Arthur et al. 2009; Preen, A. and Marsh, H. 1995). They provide habitat and nursery areas for a wide range of marine life (Jackson, E.L. et al. 2001; Waycott, M. et al. 2005), and they offer shelter from harsh environmental conditions and refuge from predators. Seagrasses can improve water quality by stabilizing sediments, filtering nutrients, and removing pollutants and contaminants from the water (Moore 2004). They help protect the coastal environment by reducing wave energy and currents, acting as a buffer against storm surges and other extreme weather events, and stabilize and reduce erosion of riverbanks during periods of flooding. Seagrasses are important carbon sinks, absorbing and storing carbon dioxide from the atmosphere (Duarte et al. 2010). They contribute to climate change mitigation by reducing atmospheric carbon levels. Seagrass carbon can also be exported to adjacent beaches or even the deep sea, providing long-term storage.

Seagrass meadows provide vital biodiversity and ecosystem services, including food production, coastal protection, and water quality regulation. Seagrass meadows support a diverse range of marine life. They are crucial for maintaining biodiversity and the health and resilience of coastal ecosystems.

During the seagrass survey conducted in June 2025, the seagrasses in the study area comprised two species of seagrass, *Zostera capricorni* and *Halophila ovalis*, and six species of alga. These plants supported a healthy ecosystem. Observations included:

- Groups of Ctenophora or comb jellies and jelly fish feeding on zooplankton in the water column (e.g. E6, T3, T5, T7, F7).
- The presence of small to large clumps of *Trichomya hirsuta* or hairy mussels that were often covered with epiphytic algae and provided habitat for organisms such as crabs and brittle stars (e.g. E4, T5, A2, F2, C1).
- The presence of *Pinna bicolor* (razor clams) and *Saccostrea glomerata* (oysters) along the transects (e.g. E5, T1, T3, F2, C2, C4).

- Schools of tailer, some small bream (*Girella tricuspidata*) and a flathead foraging for food (e.g. S6, E9).
- Schools of smaller fish hunting close to the shoreline (e.g. E6, E7, E8, F3, F4).
- Thousands of glassy prawns swimming through the water column (e.g. A6 and S7).
- One very large Bull Ray (T4).
- Polychaetes and gastropods inhabiting the sandy seafloor (e.g. S7, S8, S9, L1).

8. Conclusion and Compliance Table

The results from the June 2025 seagrass survey show compliance to Schedule 4 Environmental Conditions – Underground mining Performance Measures with respect to effects of Subsidence on Seagrass beds which display nil to minor environmental consequences due to underground mining.

The Environmental Subsidence Impact Performance Measures for Seagrass beds are listed in the table below:

Feature	Requirement	Compliance Status
Threatened species, populations or their habitats and endangered ecological communities.	Negligible impact or environmental consequences.	Yes
Seagrass beds	Negligible environmental consequences including: <ul style="list-style-type: none"> • <i>Negligible</i> change in the size and distribution of seagrass beds • <i>Negligible change</i> in the functioning of seagrass beds; and • <i>Negligible</i> change to the composition or distribution of seagrass species within seagrass beds 	Yes

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Appendices

A. Background Information

i. Factors affecting depth of water in Lake Macquarie

The bathymetric chart (**Figure A1**) of Lake Macquarie shows water depths relative to AHD throughout the year 1997. The actual water depth above the lakebed varied greatly, between 0 and 1.3m above AHD over the year.

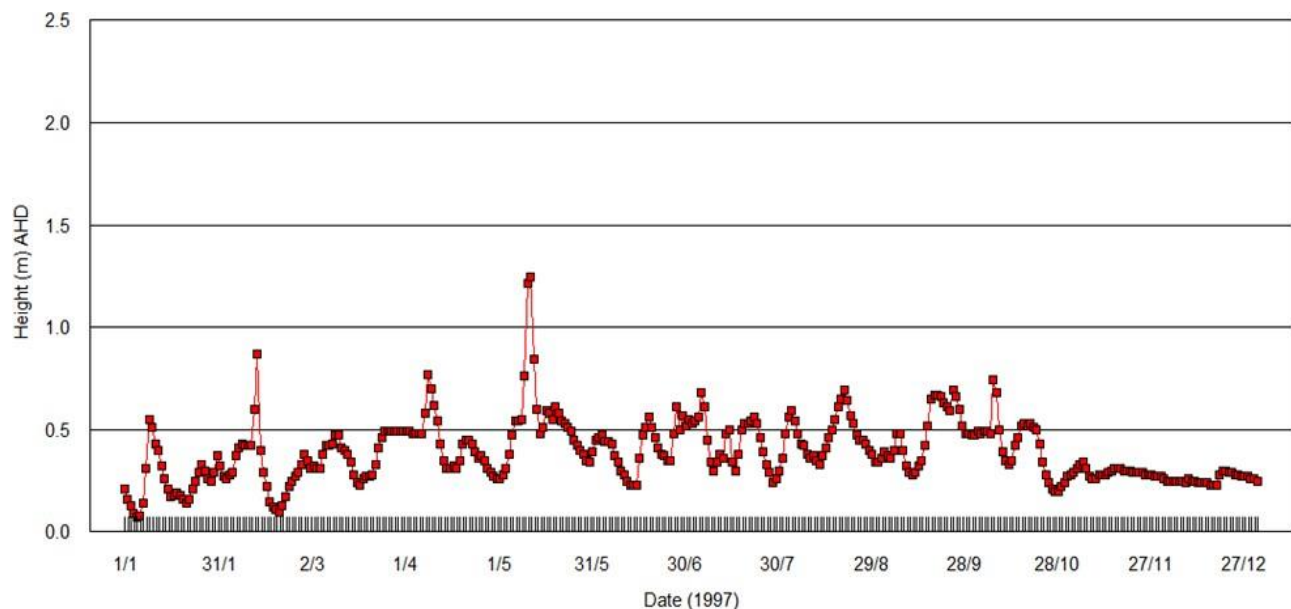


Figure A1 Water level changes in a coastal lagoon with an entrance open to coastal waters.

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 may rise to heights of a meter or more above AHD.

ii. Factors affecting the presence of seagrasses in Lake Macquarie

Seagrasses and algae are confined to the shallow waters around the perimeter of Lake Macquarie (Laxton, 2007). In Chain Valley Bay, Bardens Bay and off Summerland Point, seagrasses and benthic algae generally grow between 0 and -1.89m below AHD.

Seagrass distribution within estuaries is influenced by light penetration, water depth, salinity, water temperature, nutrient status, bed stability, wave energy, estuary type, and the evolutionary stage of the estuary. Light is a major limiting factor for the growth of seagrasses and the effects of shading, either by artificial structures or increased turbidity associated with sediment re-suspension, are common light reducing factors in estuaries (BioAnalysis, 2008).

Photosynthetically Active Radiation (PAR) changes were measured off Wyee Point in 1983 by J.H. & E.S. Laxton – Environmental Consultants P/L. 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).

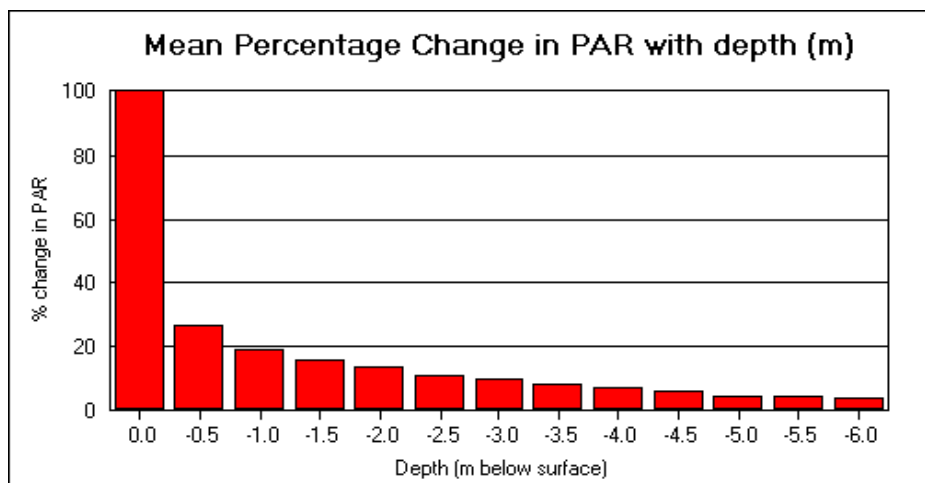


Figure A2 Mean percentage changes in PAR with depth at Wyee Point over 12 months

iii. Seagrasses and algae found in Lake Macquarie

Plate A1 provides information about the seagrasses and alga found in Lake Macquarie, NSW. Four seagrass species and ten species of algae have been identified in the Lake Macquarie area.

Plate A1 Seagrasses and algae found in Lake Macquarie



Order: Potamogetonales
Family: Zosteraceae
Species: *Zostera 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.



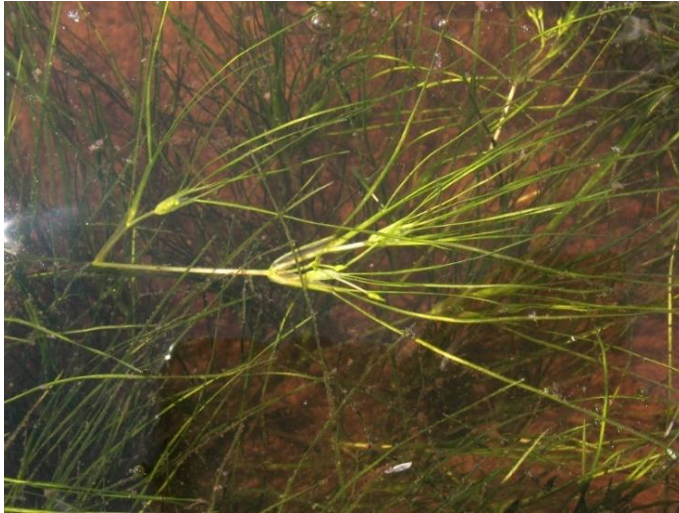
Order: Hydrocharitales
Family: Hydrocharitaceae
Species: *Halophila ovalis*

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.



Order: Alismatales
Family: Posidoniaceae
Species: *Posidonia australis*

Remarks: Large, bright green, strap-like leaves that can grow to over 80 cm long. The leaves are usually 6-14 mm wide with rounded ends. Can be found in large meadows at shallow depths in estuaries, coastal lakes and sheltered coastal waters. Listed as an endangered species and population under the Fisheries Management Act 1994. Meadows currently limited to Port Hacking, Botany Bay, Sydney Harbour, Pittwater, Brisbane Waters, Lake Macquarie.



Order: Alismatales
Family: Ruppiaceae
Species: *Ruppia sp*

Remarks: Commonly known as widgeon grass. Thread-thin grasslike annual or perennial herb which grows from a rhizome anchored shallowly in the wet substrate. It produces a long narrow straight or loosely coiled inflorescence tipped with two tiny flowers. The plant often self-pollinates, but the flowers also release pollen that reaches other plants as it floats away on bubbles. Grows in brackish water bodies such as marshes. Does not grow well in turbid water or low oxygen substrates.



Phylum: Phaeophyta
Class: Phaeophyceae
Order: Fucales
Family: Hormosiraceae
Species: *Hormosira 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.



Order: Fucales
Family: Sargassaceae
Genus: *Sargassum sp*

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.



Order: Fucales
Family: Cystoseiraceae
Species: *Cystoseira 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.



Order: Bryopsidales
Family: Codiaceae
Species: *Codium fragile*

Remarks: Green alga. 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 sub-tidally 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.



Order: Bryopsidales
Family: Codiaceae
Species: *Codium mamillosum*

Remarks: Green alga. Found along the coast of New South Wales. It is typically found in areas with moderate wave action, from low tidal zones to a depth of 40m. It has a medium green, globose (round) thallus, attached to a tuft of rhizoids.



Order: Bryopsidales
Family: Caulerpaceae
Species: *Caulerpa taxifolia*

Remarks: Fast growing marine alga native to tropical Australia and the South Pacific that is colonizing areas outside its range, including NSW waterways. *Caulerpa* is an aquatic pest that is extremely difficult to eradicate once established. The flattened feather-like fronds are bright green in colour and 3-25cm in length.



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.



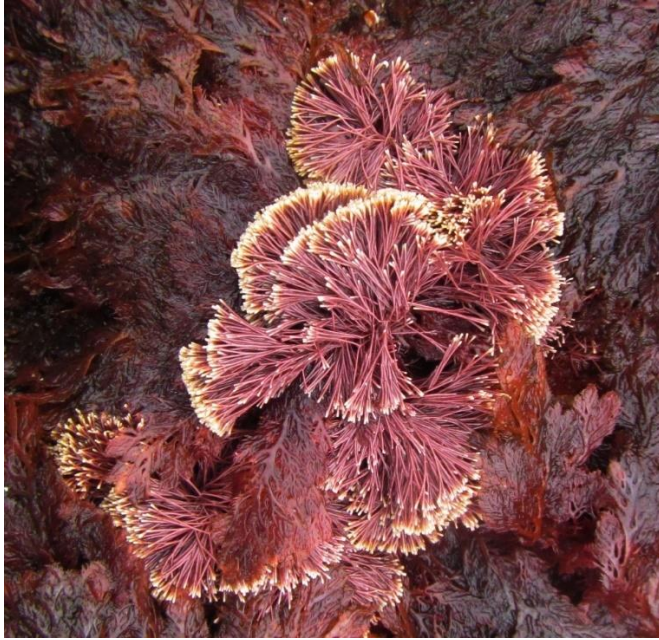
Class: Ulvophyceae
Order: Ulvales
Family: Ulvaceae

Remarks: Ulvaceae is a widely distributed family of thin green algae having either a flat or a hollow tubular thallus. Commonly called sea lettuce. Attached or free floating. Cells with parietal, laminate or cup-shaped chloroplasts with 1-4 pyrenoids.



Class: Phaeophyceae
Order: Ectocarpales
Family: Scytosiphonaceae
Genus: *Colpomenia*

Remarks: Genus of brown macroalgae which grows as a baglike or globular algae attached to hard substrates in the intertidal zone.



Class: Florideophyceae
Order: Corallinales
Family: Corallinaceae
Genus: *Corallina officinalis*

Remarks: Species of feather-like Corallina. Occurs commonly in tidal pools and on lower intertidal rock surfaces. It forms calcium carbonate deposits within its cells which serve to strengthen the thalus. These white deposits cause the seaweed to appear pink in colour.

iv Growth form of *Zostera capricorni* and extent of fouling by epiphytic algae

The following plates show the various growth characteristics of the seagrass *Zostera capricorni* in regard to leaf length. In Lake Macquarie, due to environmental factors, *Z. capricorni* either has short leaf (Plate A.2) or long leaf growth (Plate A.5).

The seagrass also provides a substrate for algae, which can have positive and negative effects on the seagrass depending on the extent of fouling. In this study, fouling is described as Light (Level 0), Moderate (Level 1) or Heavy (Level 2) (Plates A.2- A.7).



Plate A.2 Short leaved sea grass with no fouling



Plate A.3 Short leaved seagrass with low fouling



Plate A.4 Short leaved seagrass with heavy fouling

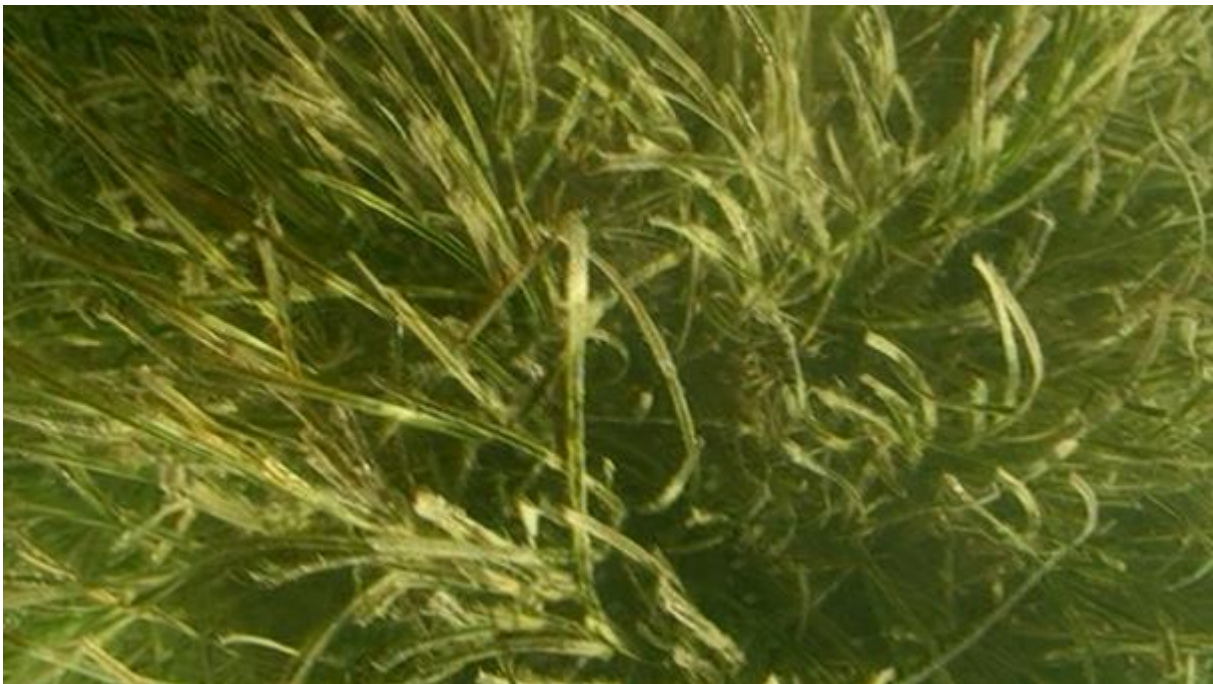


Plate A.5 Long leaved seagrass with light fouling



Plate A.6 Long leaved seagrass with moderate fouling



Plate A.7 Long leaved seagrass with heavy fouling



Plate A.8 Algae, *Halophila* and bare ground

B. Water Quality Data

Northern Shore Summerland Point and Frying Pan Bay

C5									
Date	Depth (m)	Temp (C)	Cond (ms/cm)	Turb (ntu)	pH	Sal (ppt)	D.O. (%sat)	D.O. (mg/L)	ORP (mv)
6/06/2025	0.3	17.28	41.39	3.4	7.91	26.5	96.5	7.91	430
6/06/2025	0.5	17.27	41.38	3.9	7.92	26.49	96.6	7.92	431
6/06/2025	1.0	17.26	41.39	4.8	7.92	26.5	96.9	7.95	431
6/06/2025	1.5	17.28	41.4	6.3	7.93	26.51	96.9	7.94	431
Average		17.27	41.39	4.60	7.92	26.50	96.73	7.93	430.75
Stdev		0.01	0.01	1.27	0.01	0.01	0.21	0.02	0.50
Minimum		17.26	41.38	3.4	7.91	26.49	96.5	7.91	430
Maximum		17.28	41.4	6.3	7.93	26.51	96.9	7.95	431

C6

Date	Depth (m)	Temp (C)	Cond (ms/cm)	Turb (ntu)	pH	Sal (ppt)	D.O. (%sat)	D.O. (mg/L)	ORP (mv)
6/06/2025	0.3	17.07	40.85	1.6	7.97	26.12	99.1	8.18	430
6/06/2025	0.5	17.07	40.86	2.6	7.97	26.13	99.1	8.18	431
6/06/2025	1.0	17.05	40.9	3.3	7.96	26.15	98.2	8.1	431
6/06/2025	1.5	16.98	41.16	4.6	7.93	26.34	96.2	7.94	432
6/06/2025	2.0	16.95	41.22	7.5	7.92	26.38	93.7	7.74	432
6/06/2025	2.5	16.95	41.07	7.4	7.92	26.27	93.6	7.74	432
6/06/2025	3.0	16.99	41.29	15	7.93	26.43	94.3	7.78	433
Average		17.01	41.05	6.00	7.94	26.26	96.31	7.95	431.57
Stdev		0.05	0.18	4.57	0.02	0.13	2.49	0.20	0.98
Minimum		16.95	40.85	1.6	7.92	26.12	93.6	7.74	430
Maximum		17.07	41.29	15	7.97	26.43	99.1	8.18	433

F1

Date	Depth (m)	Temp (C)	Cond (ms/cm)	Turb (ntu)	pH	Sal (ppt)	D.O. (%sat)	D.O. (mg/L)	ORP (mv)
6/06/2025	0.3	16.77	41.14	4.4	7.93	26.32	94.0	7.79	432
6/06/2025	0.5	16.78	41.13	2.6	7.94	26.32	94.9	7.87	432
6/06/2025	1.0	16.77	41.13	3.8	7.94	26.32	95.9	7.95	433
6/06/2025	1.5	16.76	41.13	4.5	7.95	26.32	95.7	7.93	433
6/06/2025	2.0	16.81	41.18	5.7	7.94	26.35	94.9	7.86	433
6/06/2025	2.5	16.78	41.14	7.4	7.95	26.32	94.8	7.86	434
Average		16.78	41.14	4.73	7.94	26.33	95.03	7.88	432.83
Stdev		0.02	0.02	1.65	0.01	0.01	0.69	0.06	0.75
Minimum		16.76	41.13	2.6	7.93	26.32	94	7.79	432
Maximum		16.81	41.18	7.4	7.95	26.35	95.9	7.95	434

F2

Date	Depth (m)	Temp (C)	Cond (ms/cm)	Turb (ntu)	pH	Sal (ppt)	D.O. (%sat)	D.O. (mg/L)	ORP (mv)
6/06/2025	0.3	17.20	41.03	10.2	7.92	26.24	94.9	7.80	430
6/06/2025	0.5	17.20	41.02	3.4	7.92	26.24	95.3	7.84	431
6/06/2025	1.0	17.20	41.06	4.0	7.93	26.26	95.9	7.88	431
6/06/2025	1.5	17.22	41.08	4.9	7.93	26.28	95.8	7.87	431
6/06/2025	2.0	17.30	41.26	5.7	7.91	26.41	95.4	7.83	432
6/06/2025	2.5	17.39	44.4	6.7	7.77	28.65	91.1	7.36	435
6/06/2025	3.0	17.74	45.08	9.0	7.75	29.14	82.0	6.55	435
Average		17.32	42.13	6.27	7.88	27.03	92.91	7.59	432.14
Stdev		0.20	1.79	2.54	0.08	1.28	5.09	0.49	2.04
Minimum		17.2	41.02	3.4	7.75	26.24	82	6.55	430
Maximum		17.74	45.08	10.2	7.93	29.14	95.9	7.88	435

F3

Date	Depth (m)	Temp (C)	Cond (ms/cm)	Turb (ntu)	pH	Sal (ppt)	D.O. (%sat)	D.O. (mg/L)	ORP (mv)
6/06/2025	0.3	17.20	40.93	4.9	7.93	26.17	96.1	7.90	432
6/06/2025	0.5	17.20	40.92	3.0	7.94	26.17	96.5	7.94	433
6/06/2025	1.0	17.20	40.92	3.9	7.94	26.17	96.7	7.96	433
6/06/2025	1.5	17.20	40.92	6.6	7.95	26.17	97.2	8.00	433
Average		17.20	40.92	4.60	7.94	26.17	96.63	7.95	432.75
Stdev		0.00	0.00	1.54	0.01	0.00	0.46	0.04	0.50
Minimum		17.2	40.92	3	7.93	26.17	96.1	7.9	432
Maximum		17.2	40.93	6.6	7.95	26.17	97.2	8	433

F4

Date	Depth (m)	Temp (C)	Cond (ms/cm)	Turb (ntu)	pH	Sal (ppt)	D.O. (%sat)	D.O. (mg/L)	ORP (mv)
6/06/2025	0.3	16.68	40.53	1.3	7.94	25.89	94.8	7.90	433
6/06/2025	0.5	16.67	40.53	2.4	7.94	25.89	95.1	7.92	433
6/06/2025	1.0	16.67	40.54	3.5	7.95	25.89	95.1	7.92	434
6/06/2025	1.5	16.67	40.52	4.6	7.95	25.88	95.4	7.94	434
6/06/2025	2.0	16.67	40.52	5.5	7.95	25.88	95.3	7.94	434
6/06/2025	2.5	16.67	40.53	7.9	7.96	25.89	95.2	7.93	434
6/06/2025	3.0	16.67	40.53	8.0	7.96	25.89	95.1	7.92	434
Average		16.67	40.53	4.74	7.95	25.89	95.14	7.92	433.71
Stdev		0.00	0.01	2.58	0.01	0.00	0.19	0.01	0.49
Minimum		16.67	40.52	1.3	7.94	25.88	94.8	7.9	433
Maximum		16.68	40.54	8	7.96	25.89	95.4	7.94	434

F5

Date	Depth (m)	Temp (C)	Cond (ms/cm)	Turb (ntu)	pH	Sal (ppt)	D.O. (%sat)	D.O. (mg/L)	ORP (mv)
6/06/2025	0.3	17.48	40.90	2.8	7.93	26.15	97.5	7.98	434
6/06/2025	0.5	17.49	40.92	3.8	7.94	26.17	98.4	8.05	434
6/06/2025	1.0	17.5	40.90	4.5	7.94	26.15	98.6	8.07	435
6/06/2025	1.5	17.52	40.95	5.3	7.94	26.19	98.7	8.07	435
6/06/2025	2.0	17.51	40.93	5.9	7.94	26.18	98.9	8.09	435
6/06/2025	2.5	17.52	40.94	7.6	7.95	26.18	99.8	8.16	435
6/06/2025	3.0	17.52	40.93	9.6	7.95	26.18	100	8.17	435
Average		17.51	40.92	5.64	7.94	26.17	98.84	8.08	434.71
Stdev		0.02	0.02	2.33	0.01	0.02	0.85	0.07	0.49
Minimum		17.48	40.9	2.8	7.93	26.15	97.5	7.98	434
Maximum		17.52	40.95	9.6	7.95	26.19	100	8.17	435

F6

Date	Depth (m)	Temp (C)	Cond (ms/cm)	Turb (ntu)	pH	Sal (ppt)	D.O. (%sat)	D.O. (mg/L)	ORP (mv)
6/06/2025	0.3	17.56	41.25	2.5	7.91	26.4	98.1	8.00	434
6/06/2025	0.5	17.55	41.24	3.1	7.91	26.39	98.7	8.06	435
6/06/2025	1.0	17.56	41.24	3.8	7.92	26.39	98.9	8.07	435
6/06/2025	1.5	17.56	41.25	4.9	7.92	26.4	99.2	8.09	435
6/06/2025	2.0	17.57	41.24	5.6	7.92	26.39	99.2	8.09	436
6/06/2025	2.5	17.57	41.25	6.2	7.92	26.4	99.6	8.12	436
6/06/2025	3.0	17.57	41.26	7.6	7.93	26.4	99.6	8.13	436
Average		17.56	41.25	4.81	7.92	26.40	99.04	8.08	435.29
Stdev		0.01	0.01	1.81	0.01	0.01	0.53	0.04	0.76
Minimum		17.55	41.24	2.5	7.91	26.39	98.1	8	434
Maximum		17.57	41.26	7.6	7.93	26.4	99.6	8.13	436

F7

Date	Depth (m)	Temp (C)	Cond (ms/cm)	Turb (ntu)	pH	Sal (ppt)	D.O. (%sat)	D.O. (mg/L)	ORP (mv)
6/06/2025	0.3	17.75	41.35	4	7.91	26.47	97.4	7.91	434
6/06/2025	0.5	17.74	41.35	3.7	7.91	26.47	98	7.97	435
6/06/2025	1.0	17.74	41.34	4.6	7.91	26.47	98.4	7.99	435
6/06/2025	1.5	17.75	41.34	5.8	7.92	26.46	98.9	8.04	436
6/06/2025	2.0	17.74	41.33	6.5	7.92	26.46	99	8.05	436
6/06/2025	2.5	17.76	41.33	7.7	7.92	26.46	99.6	8.09	436
Average		17.75	41.34	5.38	7.92	26.47	98.55	8.01	435.33
Stdev		0.01	0.01	1.56	0.01	0.01	0.78	0.06	0.82
Minimum		17.74	41.33	3.7	7.91	26.46	97.4	7.91	434
Maximum		17.76	41.35	7.7	7.92	26.47	99.6	8.09	436

Western Shore Summerland Point

E7

Date	Depth (m)	Temp (C)	Cond (ms/cm)	Turb (ntu)	pH	Sal (ppt)	D.O. (%sat)	D.O. (mg/L)	ORP (mv)
6/06/2025	0.3	16.84	43.63	1.6	7.81	28.10	87.2	7.14	428
6/06/2025	0.5	16.84	43.65	1.7	7.81	28.11	87.5	7.17	430
6/06/2025	1.0	17.67	44.41	2.9	7.78	28.66	85.9	6.90	430
6/06/2025	1.5	17.8	44.8	3.8	7.77	28.94	85.4	6.83	431
6/06/2025	2.0	17.82	44.84	4.5	7.77	28.97	85.2	6.81	431
6/06/2025	2.5	17.82	44.85	4.9	7.77	28.97	85.3	6.81	431
Average		17.47	44.36	3.23	7.79	28.63	86.08	6.94	430.17
Stdev		0.49	0.58	1.40	0.02	0.42	1.01	0.17	1.17
Minimum		16.84	43.63	1.6	7.77	28.1	85.2	6.81	428
Maximum		17.82	44.85	4.9	7.81	28.97	87.5	7.17	431

T1

Date	Depth (m)	Temp (C)	Cond (ms/cm)	Turb (ntu)	pH	Sal (ppt)	D.O. (%sat)	D.O. (mg/L)	ORP (mv)
6/06/2025	0.3	17.29	41.41	1.6	7.9	26.52	95.7	7.84	428
6/06/2025	0.5	17.29	41.4	3.0	7.91	26.51	96.1	7.87	429
6/06/2025	1.0	17.3	41.47	4.0	7.91	26.55	96.3	7.89	430
6/06/2025	1.5	17.49	42.08	5.2	7.86	26.99	93.5	7.61	431
6/06/2025	2.0	18.34	45.7	6.9	7.67	29.59	81.7	6.44	433
6/06/2025	2.5	18.43	45.77	8.7	7.65	29.64	77.1	6.06	433
Average		17.69	42.97	4.90	7.82	27.63	90.07	7.29	430.67
Stdev		0.54	2.16	2.60	0.12	1.55	8.45	0.82	2.07
Minimum		17.29	41.4	1.6	7.65	26.51	77.1	6.06	428
Maximum		18.43	45.77	8.7	7.91	29.64	96.3	7.89	433

T2

Date	Depth (m)	Temp (C)	Cond (ms/cm)	Turb (ntu)	pH	Sal (ppt)	D.O. (%sat)	D.O. (mg/L)	ORP (mv)
6/06/2025	0.3	17.74	43.11	1.6	7.84	27.72	93.6	7.55	428
6/06/2025	0.5	17.88	43.57	2.9	7.8	28.06	92.4	7.41	430
6/06/2025	1.0	18.37	45.59	4.2	7.67	29.51	85.7	6.75	431
6/06/2025	1.5	18.53	45.87	4.9	7.68	29.71	80.4	6.31	432
6/06/2025	2.0	18.64	46.04	5.6	7.66	29.84	80.5	6.3	432
6/06/2025	2.5	18.84	46.31	7.4	7.65	30.03	79.6	6.2	432
6/06/2025	3.0	19.00	46.58	7.9	7.62	30.22	78.8	6.11	432
Average		18.43	45.30	4.93	7.70	29.30	84.43	6.66	431.00
Stdev		0.47	1.38	2.28	0.08	0.99	6.27	0.60	1.53
Minimum		17.74	43.11	1.6	7.62	27.72	78.8	6.11	428
Maximum		19.00	46.58	7.9	7.84	30.22	93.6	7.55	432

T3

Date	Depth (m)	Temp (C)	Cond (ms/cm)	Turb (ntu)	pH	Sal (ppt)	D.O. (%sat)	D.O. (mg/L)	ORP (mv)
6/06/2025	0.3	18.03	44.28	1.4	7.77	28.57	87.1	6.95	428
6/06/2025	0.5	18.08	44.56	2.9	7.77	28.77	86.5	6.89	430
6/06/2025	1.0	18.33	44.98	4.1	7.71	29.07	82.3	6.51	430
6/06/2025	1.5	18.54	45.98	5.5	7.67	29.79	80.5	6.31	431
6/06/2025	2.0	18.70	46.09	6.5	7.65	29.87	79.4	6.2	432
Average		18.34	45.18	4.08	7.71	29.21	83.16	6.57	430.20
Stdev		0.29	0.82	2.03	0.06	0.59	3.49	0.34	1.48
Minimum		18.03	44.28	1.4	7.65	28.57	79.4	6.2	428
Maximum		18.70	46.09	6.50	7.77	29.87	87.10	6.95	432.00

T4

Date	Depth (m)	Temp (C)	Cond (ms/cm)	Turb (ntu)	pH	Sal (ppt)	D.O. (%sat)	D.O. (mg/L)	ORP (mv)
6/06/2025	0.3	17.96	43.98	1.5	7.78	28.35	86.8	6.94	429
6/06/2025	0.5	17.95	44	2.5	7.78	28.37	86.8	6.95	430
6/06/2025	1.0	17.95	44	2.6	7.78	28.37	86.9	6.95	430
6/06/2025	1.5	18.03	44.17	2.4	7.78	28.49	87	6.95	430
6/06/2025	2.0	18.05	44.43	3.9	7.78	28.67	86.9	6.93	430
6/06/2025	2.5	18.04	44.25	5.3	7.81	28.55	90.6	7.23	430
Average		18.00	44.14	3.03	7.79	28.47	87.50	6.99	429.83
Stdev		0.05	0.18	1.35	0.01	0.13	1.52	0.12	0.41
Minimum		17.95	43.98	1.5	7.78	28.35	86.8	6.93	429
Maximum		18.05	44.43	5.3	7.81	28.67	90.6	7.23	430

T5

Date	Depth (m)	Temp (C)	Cond (ms/cm)	Turb (ntu)	pH	Sal (ppt)	D.O. (%sat)	D.O. (mg/L)	ORP (mv)
6/06/2025	0.3	17.06	43.72	1.5	7.8	28.16	87.9	7.16	430
6/06/2025	0.5	17.28	43.84	3.3	7.79	28.25	87.2	7.07	431
6/06/2025	1.0	17.8	44.73	4.9	7.78	28.89	85.9	6.87	431
6/06/2025	1.5	17.62	44.87	5.6	7.77	28.99	86.1	6.91	432
6/06/2025	2.0	17.62	44.88	5.7	7.78	29	86.1	6.90	432
6/06/2025	2.5	18.3	45.76	6.9	7.68	29.63	80.7	6.36	432
6/06/2025	3.0	18.53	45.98	9.0	7.66	29.79	78.8	6.18	432
6/06/2025	3.5	18.06	45.37	8.8	7.7	29.35	80.7	6.41	433
Average		17.78	44.89	5.71	7.75	29.01	84.18	6.73	431.63
Stdev		0.50	0.82	2.56	0.06	0.59	3.51	0.36	0.92
Minimum		17.06	43.72	1.5	7.66	28.16	78.8	6.18	430
Maximum		18.53	45.98	9	7.8	29.79	87.9	7.16	433

T6

Date	Depth (m)	Temp (C)	Cond (ms/cm)	Turb (ntu)	pH	Sal (ppt)	D.O. (%sat)	D.O. (mg/L)	ORP (mv)
6/06/2025	0.3	17.55	43.92	1.1	7.79	28.31	87.1	7.02	428
6/06/2025	0.5	17.65	44.03	2.6	7.79	28.39	87.2	7.02	430
6/06/2025	1.0	17.65	44.10	2.7	7.80	28.44	87.2	7.02	430
6/06/2025	1.5	17.87	44.29	3.6	7.79	28.58	87.0	6.97	430
6/06/2025	2.0	17.99	44.62	4.4	7.78	28.81	87.1	6.95	430
6/06/2025	2.5	17.93	45.06	6.2	7.77	29.13	86.4	6.88	431
Average		17.77	44.34	3.43	7.79	28.61	87.00	6.98	429.83
Stdev		0.18	0.43	1.75	0.01	0.31	0.30	0.06	0.98
Minimum		17.55	43.92	1.1	7.77	28.31	86.4	6.88	428
Maximum		17.99	45.06	6.2	7.8	29.13	87.2	7.02	431

T7

Date	Depth (m)	Temp (C)	Cond (ms/cm)	Turb (ntu)	pH	Sal (ppt)	D.O. (%sat)	D.O. (mg/L)	ORP (mv)
6/06/2025	0.3	16.62	43.38	1.3	7.85	27.92	89.7	7.39	429
6/06/2025	0.5	17.62	44.66	2.5	7.84	28.84	88.5	7.10	430
6/06/2025	1.0	17.71	44.67	3.8	7.88	28.85	91.5	7.33	430
Average		17.32	44.24	2.53	7.86	28.54	89.90	7.27	429.67
Stdev		0.61	0.74	1.25	0.02	0.53	1.51	0.15	0.58
Minimum		16.62	43.38	1.3	7.84	27.92	88.5	7.1	429
Maximum		17.71	44.67	3.8	7.88	28.85	91.5	7.39	430

T8

Date	Depth (m)	Temp (C)	Cond (ms/cm)	Turb (ntu)	pH	Sal (ppt)	D.O. (%sat)	D.O. (mg/L)	ORP (mv)
6/06/2025	0.3	16.96	43.46	1	7.83	27.98	87.8	7.18	431
6/06/2025	0.5	17.62	44.32	2.7	7.79	28.59	86.8	6.98	432
6/06/2025	1.0	17.69	44.73	3.5	7.78	28.89	85.9	6.89	433
6/06/2025	1.5	17.79	45.25	4.3	7.75	29.27	85.3	6.81	433
6/06/2025	2.0	17.98	45.44	5	7.73	29.41	83.7	6.65	434
6/06/2025	2.5	17.7	44.96	6.5	7.76	29.06	85.2	6.82	434
6/06/2025	3.0	16.63	43.38	6.5	7.84	27.92	89.3	7.35	428
Average		17.48	44.51	4.21	7.78	28.73	86.29	6.95	432.14
Stdev		0.49	0.82	2.01	0.04	0.60	1.85	0.24	2.12
Minimum		16.63	43.38	1	7.73	27.92	83.7	6.65	428
Maximum		17.98	45.44	6.5	7.84	29.41	89.3	7.35	434

Chain Valley Bay

E1

Date	Depth (m)	Temp (C)	Cond (ms/cm)	Turb (ntu)	pH	Sal (ppt)	D.O. (%sat)	D.O. (mg/L)	ORP (mv)
6/06/2025	0.3	15.95	41.92	3.1	7.91	26.87	81.9	6.88	385
6/06/2025	0.5	15.96	41.9	3.4	7.91	26.87	81.7	6.86	387
6/06/2025	1.0	15.95	41.94	3.5	7.92	26.89	81.8	6.87	388
6/06/2025	1.5	15.98	41.93	6.6	7.92	26.89	81.8	6.86	389
Average		15.96	41.92	4.15	7.92	26.88	81.80	6.87	387.25
Stdev		0.01	0.02	1.64	0.01	0.01	0.08	0.01	1.71
Minimum		15.95	41.9	3.1	7.91	26.87	81.7	6.86	385
Maximum		15.98	41.94	6.6	7.92	26.89	81.9	6.88	389

E2

Date	Depth (m)	Temp (C)	Cond (ms/cm)	Turb (ntu)	pH	Sal (ppt)	D.O. (%sat)	D.O. (mg/L)	ORP (mv)
6/06/2025	0.3	16.01	41.93	4.9	7.91	26.88	78.8	6.61	396
6/06/2025	0.5	16.04	41.94	4.6	7.91	26.89	79.9	6.70	396
6/06/2025	1.0	18.18	45.52	5.7	7.72	29.46	72.9	5.77	398
6/06/2025	1.5	18.64	46.68	5.4	7.67	30.3	68.0	5.31	398
6/06/2025	2.0	18.33	46.56	5.4	7.67	30.22	68.4	5.37	398
6/06/2025	2.5	18.30	46.55	6.8	7.65	30.21	67.8	5.33	399
Average		17.58	44.86	5.47	7.76	28.99	72.63	5.85	397.50
Stdev		1.22	2.31	0.76	0.12	1.66	5.54	0.65	1.22
Minimum		16.01	41.93	4.6	7.65	26.88	67.8	5.31	396
Maximum		18.64	46.68	6.8	7.91	30.3	79.9	6.7	399

E3

Date	Depth (m)	Temp (C)	Cond (ms/cm)	Turb (ntu)	pH	Sal (ppt)	D.O. (%sat)	D.O. (mg/L)	ORP (mv)
6/06/2025	0.3	16.04	43.32	4.5	7.83	27.88	78.000	6.50	409
6/06/2025	0.5	16.02	43.27	4.3	7.83	27.84	78.1	6.51	409
6/06/2025	1.0	16.61	44.35	4.2	7.76	28.61	76.6	6.28	410
6/06/2025	1.5	17.46	45.31	4.2	7.73	29.31	73.7	5.92	411
6/06/2025	2.0	17.30	45.56	5.2	7.69	29.49	71.9	5.78	412
6/06/2025	2.5	17.30	45.81	5.5	7.63	29.67	68.0	5.46	413
Average		16.79	44.60	4.65	7.75	28.80	74.38	6.08	410.67
Stdev		0.66	1.13	0.56	0.08	0.81	3.98	0.42	1.63
Minimum		16.02	43.27	4.2	7.63	27.84	68	5.46	409
Maximum		17.46	45.81	5.5	7.83	29.67	78.1	6.51	413

E4

Date	Depth (m)	Temp (C)	Cond (ms/cm)	Turb (ntu)	pH	Sal (ppt)	D.O. (%sat)	D.O. (mg/L)	ORP (mv)
6/06/2025	0.3	16.31	42.46	2.4	7.88	27.27	84.1	7.00	419
6/06/2025	0.5	16.49	42.69	2.5	7.87	27.42	83.8	6.94	419
6/06/2025	1.0	17.45	43.91	3.1	7.77	28.3	79.7	6.44	420
6/06/2025	1.5	18.15	45.9	4.1	7.66	29.74	70.5	5.57	421
6/06/2025	2.0	18.09	45.96	4.2	7.68	29.78	73.5	5.82	421
Average		17.30	44.18	3.26	7.77	28.50	78.32	6.35	420.00
Stdev		0.87	1.69	0.86	0.10	1.21	6.12	0.65	1.00
Minimum		16.31	42.46	2.4	7.66	27.27	70.5	5.57	419
Maximum		18.15	45.96	4.2	7.88	29.78	84.1	7	421

L1

Date	Depth (m)	Temp (C)	Cond (ms/cm)	Turb (ntu)	pH	Sal (ppt)	D.O. (%sat)	D.O. (mg/L)	ORP (mv)
6/06/2025	0.3	16.9	44.21	2.2	7.75	28.52	79.2	6.46	431
6/06/2025	0.5	16.84	44.26	2.3	7.75	28.55	77.3	6.31	431
6/06/2025	1.0	16.78	44.45	2.4	7.74	28.69	78.4	6.4	432
6/06/2025	1.5	17.79	46.68	3.2	7.64	30.30	71.4	5.66	432
6/06/2025	2.0	17.85	46.49	4.5	7.63	30.17	69.9	5.55	432
Average		17.23	45.22	2.92	7.70	29.25	75.24	6.08	431.60
Stdev		0.54	1.25	0.97	0.06	0.91	4.28	0.44	0.55
Minimum		16.78	44.21	2.2	7.63	28.52	69.9	5.55	431
Maximum		17.85	46.68	4.5	7.75	30.3	79.2	6.46	432

E5

Date	Depth (m)	Temp (C)	Cond (ms/cm)	Turb (ntu)	pH	Sal (ppt)	D.O. (%sat)	D.O. (mg/L)	ORP (mv)
6/06/2025	0.3	16.9	43.33	2.3	7.82	27.88	86.5	7.08	431
6/06/2025	0.5	16.88	43.32	2.2	7.83	27.88	86.7	7.10	431
6/06/2025	1.0	16.82	43.37	2.3	7.84	27.91	86.9	7.13	431
6/06/2025	1.5	16.84	43.36	3.0	7.85	27.91	87.3	7.16	432
Average		16.86	43.35	2.45	7.84	27.90	86.85	7.12	431.25
Stdev		0.04	0.02	0.37	0.01	0.02	0.34	0.04	0.50
Minimum		16.82	43.32	2.2	7.82	27.88	86.5	7.08	431
Maximum		16.9	43.37	3	7.85	27.91	87.3	7.16	432

E6

Date	Depth (m)	Temp (C)	Cond (ms/cm)	Turb (ntu)	pH	Sal (ppt)	D.O. (%sat)	D.O. (mg/L)	ORP (mv)
6/06/2025	0.3	17.09	45.25	20.2	7.66	29.26	76.0	6.15	433
6/06/2025	0.5	17.14	45.55	2.2	7.64	29.48	75.5	6.10	433
6/06/2025	1.0	17.15	45.61	2.2	7.64	29.52	75.4	6.09	433
6/06/2025	1.5	17.35	45.97	3.2	7.58	29.78	71.6	5.75	434
6/06/2025	2.0	17.35	45.97	3.3	7.58	29.79	71.5	5.74	434
6/06/2025	2.5	17.35	46.04	7.3	7.56	29.84	70.0	5.62	434
6/06/2025	3.0	17.42	46.03	7.5	7.57	29.83	70.1	5.62	435
Average		17.26	45.77	6.56	7.60	29.64	72.87	5.87	433.71
Stdev		0.13	0.31	6.42	0.04	0.22	2.66	0.24	0.76
Minimum		17.09	45.25	2.2	7.56	29.26	70	5.62	433
Maximum		17.42	46.04	20.2	7.66	29.84	76	6.15	435

E8

Date	Depth (m)	Temp (C)	Cond (ms/cm)	Turb (ntu)	pH	Sal (ppt)	D.O. (%sat)	D.O. (mg/L)	ORP (mv)
6/06/2025	0.3	16.85	43.42	1.3	7.85	27.95	90.5	7.42	433
6/06/2025	0.5	16.89	43.41	1.7	7.87	27.94	91.3	7.47	433
6/06/2025	1.0	16.87	43.47	2.6	7.85	27.98	91.3	7.48	434
6/06/2025	1.5	16.97	43.44	4.9	7.88	27.96	91.4	7.48	434
Average		16.90	43.44	2.63	7.86	27.96	91.13	7.46	433.50
Stdev		0.05	0.03	1.61	0.02	0.02	0.42	0.03	0.58
Minimum		16.85	43.41	1.3	7.85	27.94	90.5	7.42	433
Maximum		16.97	43.47	4.9	7.88	27.98	91.4	7.48	434

E9

Date	Depth (m)	Temp (C)	Cond (ms/cm)	Turb (ntu)	pH	Sal (ppt)	D.O. (%sat)	D.O. (mg/L)	ORP (mv)
6/06/2025	0.3	17.66	44.04	1.2	7.85	28.39	91.1	7.33	433
6/06/2025	0.5	17.68	44.07	2.2	7.84	28.42	91.3	7.34	434
6/06/2025	1.0	17.75	44.30	3.5	7.81	28.58	90.0	7.22	434
6/06/2025	1.5	17.78	44.65	4.3	7.78	28.83	87.8	7.03	435
6/06/2025	2.0	17.81	45.07	5.1	7.75	29.13	86.4	6.90	435
6/06/2025	2.5	17.82	45.76	7.0	7.67	29.63	79.7	6.34	437
Average		17.75	44.65	3.88	7.78	28.83	87.72	7.03	434.67
Stdev		0.07	0.67	2.08	0.07	0.48	4.37	0.38	1.37
Minimum		17.66	44.04	1.2	7.67	28.39	79.70	6.34	433
Maximum		17.82	45.76	7.0	7.85	29.63	91.30	7.34	437

E10

Date	Depth (m)	Temp (C)	Cond (ms/cm)	Turb (ntu)	pH	Sal (ppt)	D.O. (%sat)	D.O. (mg/L)	ORP (mv)
6/06/2025	0.3	17.36	44.42	1.5	7.77	28.67	86.3	6.97	436
6/06/2025	0.5	17.41	44.48	2.7	7.78	28.71	86.3	6.96	436
6/06/2025	1.0	17.67	45.26	3.8	7.76	29.27	86.2	6.89	437
6/06/2025	1.5	18.13	46.02	4.9	7.66	29.82	81.7	6.46	437
6/06/2025	2.0	18.13	46.02	4.9	7.66	29.82	81.3	6.42	437
6/06/2025	2.5	18.05	45.99	5.5	7.66	29.8	79.4	6.28	438
6/06/2025	3.0	18.26	46.23	6.0	7.57	29.97	75.0	5.91	438
6/06/2025	3.5	18.64	46.76	6.8	7.58	30.36	70.6	5.51	438
6/06/2025	4.0	19.04	46.94	8.6	7.53	30.49	65.6	5.07	438
Average		18.08	45.79	4.97	7.66	29.66	79.16	6.27	437.22
Stdev		0.55	0.90	2.13	0.09	0.65	7.39	0.67	0.83
Minimum		17.36	44.42	1.5	7.53	28.67	65.6	5.07	436
Maximum		19.04	46.94	8.6	7.78	30.49	86.3	6.97	438

E11

Date	Depth (m)	Temp (C)	Cond (ms/cm)	Turb (ntu)	pH	Sal (ppt)	D.O. (%sat)	D.O. (mg/L)	ORP (mv)
6/06/2025	0.3	17.19	44.52	6.1	7.78	28.74	86.2	6.98	436
6/06/2025	0.5	17.28	44.81	4.7	7.77	28.95	86.6	7.00	437
6/06/2025	1.0	18.23	45.73	4.2	7.82	29.62	88.6	7.00	437
6/06/2025	1.5	18.09	45.46	5.7	7.79	29.42	88.7	7.04	437
Average		17.70	45.13	5.18	7.79	29.18	87.53	7.01	436.75
Stdev		0.54	0.56	0.88	0.02	0.41	1.31	0.03	0.50
Minimum		17.19	44.52	4.2	7.77	28.74	86.2	6.98	436
Maximum		18.23	45.73	6.1	7.82	29.62	88.7	7.04	437

E12

Date	Depth (m)	Temp (C)	Cond (ms/cm)	Turb (ntu)	pH	Sal (ppt)	D.O. (%sat)	D.O. (mg/L)	ORP (mv)
6/06/2025	0.3	17.27	44.46	1.5	7.77	28.7	85.6	6.93	437
6/06/2025	0.5	17.25	44.56	1.8	7.77	28.77	86.1	6.96	438
6/06/2025	1.0	17.76	45.71	3.2	7.71	29.6	81.9	6.53	438
6/06/2025	1.5	18.18	45.97	5.1	7.66	29.79	80.3	6.34	439
6/06/2025	2.0	18.16	45.97	6.1	7.65	29.79	78.6	6.21	439
Average		17.72	45.33	3.54	7.71	29.33	82.50	6.59	438.20
Stdev		0.46	0.76	2.02	0.06	0.55	3.28	0.34	0.84
Minimum		17.25	44.46	1.5	7.65	28.7	78.6	6.21	437
Maximum		18.18	45.97	6.1	7.77	29.79	86.1	6.96	439

E13

Date	Depth (m)	Temp (C)	Cond (ms/cm)	Turb (ntu)	pH	Sal (ppt)	D.O. (%sat)	D.O. (mg/L)	ORP (mv)
6/06/2025	0.3	17.55	45.38	2.0	7.72	29.36	83.5	6.69	438
6/06/2025	0.5	17.51	45.39	1.4	7.72	29.37	83.7	6.71	438
6/06/2025	1.0	17.77	45.7	2.6	7.69	29.59	80.9	6.45	439
6/06/2025	1.5	17.84	45.86	5.8	7.68	29.71	80.0	6.36	439
Average		17.67	45.58	2.95	7.70	29.51	82.03	6.55	438.50
Stdev		0.16	0.24	1.96	0.02	0.17	1.86	0.17	0.58
Minimum		17.51	45.38	1.4	7.68	29.36	80	6.36	438
Maximum		17.84	45.86	5.8	7.72	29.71	83.7	6.71	439

E14

Date	Depth (m)	Temp (C)	Cond (ms/cm)	Turb (ntu)	pH	Sal (ppt)	D.O. (%sat)	D.O. (mg/L)	ORP (mv)
6/06/2025	0.3	16.60	44.61	1.7	7.81	28.81	87.2	7.15	440
6/06/2025	0.5	16.83	44.81	2.3	7.79	28.95	86.2	7.02	440
6/06/2025	1.0	16.88	44.89	2.9	7.75	29.00	84.4	6.87	440
6/06/2025	1.5	17.25	45.32	4.1	7.71	29.31	82.8	6.68	440
6/06/2025	2.0	17.27	45.36	4.6	7.71	29.35	81.2	6.54	440
Average		16.97	45.00	3.12	7.75	29.08	84.36	6.85	440.00
Stdev		0.29	0.33	1.21	0.05	0.24	2.44	0.25	0.00
Minimum		16.6	44.61	1.7	7.71	28.81	81.2	6.54	440
Maximum		17.27	45.36	4.6	7.81	29.35	87.2	7.15	440

E15

Date	Depth (m)	Temp (C)	Cond (ms/cm)	Turb (ntu)	pH	Sal (ppt)	D.O. (%sat)	D.O. (mg/L)	ORP (mv)
6/06/2025	0.3	16.50	42.61	60.5	7.84	27.37	90.2	7.47	440
6/06/2025	0.5	16.48	42.49	6.6	7.85	27.29	90.2	7.47	440
6/06/2025	1.0	16.46	43.55	5.1	7.86	28.05	90.8	7.49	440
6/06/2025	1.5	16.48	43.67	3.1	7.86	28.13	90.7	7.48	440
Average		16.48	43.08	18.83	7.85	27.71	90.48	7.48	440.00
Stdev		0.02	0.62	27.82	0.01	0.44	0.32	0.01	0.00
Minimum		16.46	42.49	3.1	7.84	27.29	90.2	7.47	440
Maximum		16.5	43.67	60.5	7.86	28.13	90.8	7.49	440

E16

Date	Depth (m)	Temp (C)	Cond (ms/cm)	Turb (ntu)	pH	Sal (ppt)	D.O. (%sat)	D.O. (mg/L)	ORP (mv)
6/06/2025	0.3	15.95	42.23	18.8	7.88	27.10	89.3	7.49	436
6/06/2025	0.5	16.51	43.67	2.4	7.83	28.13	87.6	7.22	436
6/06/2025	1.0	16.55	43.86	3.6	7.82	28.26	85.3	7.02	436
Average		16.34	43.25	8.27	7.84	27.83	87.40	7.24	436.00
Stdev		0.34	0.89	9.14	0.03	0.64	2.01	0.24	0.00
Minimum		15.95	42.23	2.4	7.82	27.1	85.3	7.02	436
Maximum		16.55	43.86	18.8	7.88	28.26	89.3	7.49	436

A1

Date	Depth (m)	Temp (C)	Cond (ms/cm)	Turb (ntu)	pH	Sal (ppt)	D.O. (%sat)	D.O. (mg/L)	ORP (mv)
6/06/2025	0.3	17.93	44.68	7.3	7.77	28.85	88.7	7.08	440
6/06/2025	0.5	17.98	44.77	6.9	7.76	28.92	88.6	7.06	442
6/06/2025	1.0	18.65	46.21	7.2	7.62	29.96	84.0	6.57	444
6/06/2025	1.5	18.77	46.28	7.5	7.60	30.01	78.3	6.10	444
6/06/2025	2.0	18.78	46.26	7.8	7.60	30.00	76.0	5.93	444
Average		18.42	45.64	7.34	7.67	29.55	83.12	6.55	442.80
Stdev		0.43	0.84	0.34	0.09	0.61	5.83	0.53	1.79
Minimum		17.93	44.68	6.9	7.6	28.85	76	5.93	440
Maximum		18.78	46.28	7.8	7.77	30.01	88.7	7.08	444

A2

Date	Depth (m)	Temp (C)	Cond (ms/cm)	Turb (ntu)	pH	Sal (ppt)	D.O. (%sat)	D.O. (mg/L)	ORP (mv)
6/06/2025	0.3	17.92	45.31	5.9	7.67	29.31	81.5	6.49	442
6/06/2025	0.5	18.12	45.48	6.2	7.65	29.43	79.8	6.33	443
6/06/2025	1.0	18.32	45.82	7.3	7.64	29.68	78.6	6.19	443
6/06/2025	1.5	18.59	46.41	13.1	7.61	30.1	77.8	6.08	444
Average		18.24	45.76	8.13	7.64	29.63	79.43	6.27	443.00
Stdev		0.29	0.49	3.37	0.02	0.35	1.61	0.18	0.82
Minimum		17.92	45.31	5.9	7.61	29.31	77.8	6.08	442
Maximum		18.59	46.41	13.1	7.67	30.1	81.5	6.49	444

A3

Date	Depth (m)	Temp (C)	Cond (ms/cm)	Turb (ntu)	pH	Sal (ppt)	D.O. (%sat)	D.O. (mg/L)	ORP (mv)
6/06/2025	0.3	17.45	43.41	6.4	7.86	27.94	95.1	7.70	440
6/06/2025	0.5	18.05	44.63	7.2	7.76	28.82	93.0	7.41	441
6/06/2025	1.0	18.25	46.17	7.8	7.69	29.93	89.9	7.09	442
6/06/2025	1.5	18.91	46.95	9.7	7.57	30.5	80.6	6.25	443
6/06/2025	2.0	19.00	46.87	9.8	7.56	30.44	79.2	6.13	443
6/06/2025	2.5	19.16	46.83	11.8	7.54	30.41	75.0	5.79	443
Average		18.47	45.81	8.78	7.66	29.67	85.47	6.73	442.00
Stdev		0.67	1.47	2.01	0.13	1.06	8.27	0.78	1.26
Minimum		17.45	43.41	6.4	7.54	27.94	75	5.79	440
Maximum		19.16	46.95	11.8	7.86	30.5	95.1	7.7	443

A4

Date	Depth (m)	Temp (C)	Cond (ms/cm)	Turb (ntu)	pH	Sal (ppt)	D.O. (%sat)	D.O. (mg/L)	ORP (mv)
6/06/2025	0.3	18.28	44.55	6.6	7.75	28.77	87.3	6.92	440
6/06/2025	0.5	18.29	44.49	6.6	7.78	28.72	90.1	7.14	442
6/06/2025	1.0	18.33	45.23	7.1	7.72	29.25	89.6	7.08	443
6/06/2025	1.5	18.56	46.20	8.6	7.65	29.95	86.3	6.76	443
6/06/2025	2.0	18.77	46.12	9.4	7.6	29.89	79.5	6.20	444
6/06/2025	2.5	18.75	45.50	28.8	7.73	29.44	81.5	6.38	443
6/06/2025	3.0	17.43	43.43	6.1	7.86	27.96	95.00	7.70	439
Average		18.34	45.07	10.46	7.73	29.14	87.04	6.88	442.00
Stdev		0.45	0.99	8.18	0.08	0.71	5.28	0.50	1.83
Minimum		17.43	43.43	6.1	7.6	27.96	79.5	6.2	439
Maximum		18.77	46.2	28.8	7.86	29.95	95	7.7	444

A5

Date	Depth (m)	Temp (C)	Cond (ms/cm)	Turb (ntu)	pH	Sal (ppt)	D.O. (%sat)	D.O. (mg/L)	ORP (mv)
6/06/2025	0.3	19.16	46.46	7.7	7.61	30.14	75.7	5.85	443
6/06/2025	0.5	19.06	46.5	8.4	7.63	30.17	77.3	5.99	443
6/06/2025	1.0	19.06	46.41	8.6	7.63	30.1	77.6	6.01	443
6/06/2025	1.5	19.13	46.47	10.7	7.63	30.15	77.4	5.99	444
Average		19.10	46.46	8.85	7.63	30.14	77.00	5.96	443.25
Stdev		0.05	0.04	1.29	0.01	0.03	0.88	0.07	0.50
Minimum		19.06	46.41	7.7	7.61	30.1	75.7	5.85	443
Maximum		19.16	46.5	10.7	7.63	30.17	77.6	6.01	444

A6

Date	Depth (m)	Temp (C)	Cond (ms/cm)	Turb (ntu)	pH	Sal (ppt)	D.O. (%sat)	D.O. (mg/L)	ORP (mv)
6/06/2025	0.3	18.56	45.92	4.8	7.67	29.75	79.6	6.24	441
6/06/2025	0.5	18.66	46.03	5.2	7.66	29.83	78.7	6.15	441
6/06/2025	1.0	18.98	46.38	5.8	7.61	30.08	76.0	5.90	442
6/06/2025	1.5	19.11	46.55	6.2	7.58	30.21	73.1	5.66	442
6/06/2025	2.0	19.13	46.58	6.6	7.58	30.23	72.2	5.59	443
6/06/2025	2.5	19.59	47.02	7.2	7.52	30.55	68.7	5.26	443
6/06/2025	3.0	19.7	47.11	7.7	7.5	30.61	64.6	4.93	443
6/06/2025	3.5	19.69	47.14	8.6	7.5	30.64	64.0	4.88	443
6/06/2025	4.0	19.65	47.18	10.1	7.5	30.66	63.3	4.83	443
Average		19.23	46.66	6.91	7.57	30.28	71.13	5.49	442.33
Stdev		0.45	0.48	1.69	0.07	0.35	6.31	0.55	0.87
Minimum		18.56	45.92	4.8	7.5	29.75	63.3	4.83	441
Maximum		19.7	47.18	10.1	7.67	30.66	79.6	6.24	443

Sugar Bay and Sunshine

S1

Date	Depth (m)	Temp (C)	Cond (ms/cm)	Turb (ntu)	pH	Sal (ppt)	D.O. (%sat)	D.O. (mg/L)	ORP (mv)
6/06/2025	0.3	17.44	43.15	4.4	7.86	27.75	93.6	7.59	440
6/06/2025	0.5	17.46	43.3	4.8	7.85	27.87	93.7	7.59	441
6/06/2025	1.0	18.15	44.91	13.0	7.88	29.02	93.5	7.42	441
6/06/2025	1.5	18.15	44.06	19.8	7.87	28.41	98.2	7.82	441
Average		17.80	43.86	10.50	7.87	28.26	94.75	7.61	440.75
Stdev		0.40	0.81	7.36	0.01	0.58	2.30	0.16	0.50
Minimum		17.44	43.15	4.4	7.85	27.75	93.5	7.42	440
Maximum		18.15	44.91	19.8	7.88	29.02	98.2	7.82	441

S2

Date	Depth (m)	Temp (C)	Cond (ms/cm)	Turb (ntu)	pH	Sal (ppt)	D.O. (%sat)	D.O. (mg/L)	ORP (mv)
6/06/2025	0.3	18.00	44.45	6.1	7.81	28.69	91.2	7.27	441
6/06/2025	0.5	17.93	44.99	6.4	7.76	29.08	91.4	7.28	442
6/06/2025	1.0	18.08	45.41	7.1	7.68	29.38	84.6	6.71	442
6/06/2025	1.5	18.76	46.32	7.9	7.6	30.04	77.0	6.00	443
6/06/2025	2.0	18.91	46.46	8.6	7.58	30.14	72.7	5.65	443
6/06/2025	2.5	18.94	46.46	10.1	7.58	30.14	71.1	5.52	443
Average		18.44	45.68	7.70	7.67	29.58	81.33	6.41	442.33
Stdev		0.48	0.86	1.50	0.10	0.62	9.03	0.79	0.82
Minimum		17.93	44.45	6.1	7.58	28.69	71.1	5.52	441
Maximum		18.94	46.46	10.1	7.81	30.14	91.4	7.28	443

S3

Date	Depth (m)	Temp (C)	Cond (ms/cm)	Turb (ntu)	pH	Sal (ppt)	D.O. (%sat)	D.O. (mg/L)	ORP (mv)
6/06/2025	0.3	17.69	44.50	6.8	7.85	28.72	94.7	7.60	441
6/06/2025	0.5	17.71	44.51	7.6	7.84	28.73	92.4	7.41	441
6/06/2025	1.0	17.93	45.02	8.4	7.77	29.1	89.2	7.11	442
6/06/2025	1.5	18.07	45.46	8.9	7.7	29.42	83.5	6.62	442
6/06/2025	2.0	18.45	45.71	11.2	7.66	29.6	77.9	6.13	443
6/06/2025	2.5	18.27	45.45	10.6	7.67	29.41	77.6	6.13	443
Average		18.02	45.11	8.92	7.75	29.16	85.88	6.83	442.00
Stdev		0.30	0.52	1.70	0.08	0.38	7.34	0.64	0.89
Minimum		17.69	44.5	6.8	7.66	28.72	77.6	6.13	441
Maximum		18.45	45.71	11.2	7.85	29.6	94.7	7.6	443

S4

Date	Depth (m)	Temp (C)	Cond (ms/cm)	Turb (ntu)	pH	Sal (ppt)	D.O. (%sat)	D.O. (mg/L)	ORP (mv)
6/06/2025	0.3	18.00	44.88	5.3	7.82	29.00	92.1	7.33	441
6/06/2025	0.5	18.14	45.27	5.8	7.74	29.28	89.9	7.13	441
6/06/2025	1.0	18.18	45.44	6.7	7.69	29.4	83.6	6.62	442
6/06/2025	1.5	18.27	45.52	8.0	7.68	29.46	80.8	6.38	442
6/06/2025	2.0	18.18	45.45	9.0	7.7	29.41	81.4	6.44	442
Average		18.15	45.31	6.96	7.73	29.31	85.56	6.78	441.60
Stdev		0.10	0.26	1.53	0.06	0.19	5.13	0.43	0.55
Minimum		18	44.88	5.3	7.68	29	80.8	6.38	441
Maximum		18.27	45.52	9	7.82	29.46	92.1	7.33	442

S5

Date	Depth (m)	Temp (C)	Cond (ms/cm)	Turb (ntu)	pH	Sal (ppt)	D.O. (%sat)	D.O. (mg/L)	ORP (mv)
6/06/2025	0.3	18.06	43.91	4.0	7.83	28.3	92.3	7.37	439
6/06/2025	0.5	18.18	44.02	4.7	7.83	28.38	92.4	7.36	439
6/06/2025	1.0	18.11	44.32	5.2	7.83	28.6	92.5	7.37	440
6/06/2025	1.5	18.12	44.4	5.8	7.83	28.65	92.6	7.37	440
6/06/2025	2.0	18.14	44.5	6.4	7.84	28.73	92.8	7.38	440
6/06/2025	2.5	18.15	44.56	6.8	7.83	28.77	92.9	7.39	440
6/06/2025	3.0	18.37	45.23	7.3	7.77	29.25	91.5	7.22	441
6/06/2025	3.5	19.09	46.61	9.2	7.59	30.25	74.5	5.77	442
Average		18.28	44.69	6.18	7.79	28.87	90.19	7.15	440.13
Stdev		0.34	0.87	1.64	0.09	0.63	6.35	0.56	0.99
Minimum		18.06	43.91	4.0	7.59	28.3	74.5	5.77	439
Maximum		19.09	46.61	9.2	7.84	30.25	92.9	7.39	442

S6

Date	Depth (m)	Temp (C)	Cond (ms/cm)	Turb (ntu)	pH	Sal (ppt)	D.O. (%sat)	D.O. (mg/L)	ORP (mv)
6/06/2025	0.3	18.00	43.85	1.8	7.81	28.26	90.0	7.19	439
6/06/2025	0.5	18.00	43.86	3.0	7.82	28.26	89.8	7.18	439
6/06/2025	1.0	18.03	44.02	4.0	7.82	28.38	90.4	7.22	440
6/06/2025	1.5	18.03	44.14	4.6	7.82	28.47	90.2	7.20	440
6/06/2025	2.0	18.19	44.79	5.5	7.79	28.94	88.8	7.05	441
6/06/2025	2.5	18.20	44.81	5.6	7.79	28.95	88.6	7.03	441
6/06/2025	3.0	18.25	44.83	16.0	7.78	28.97	87.1	6.91	441
Average		18.10	44.33	5.79	7.80	28.60	89.27	7.11	440.14
Stdev		0.11	0.46	4.70	0.02	0.33	1.18	0.12	0.90
Minimum		18	43.85	1.8	7.78	28.26	87.1	6.91	439
Maximum		18.25	44.83	16	7.82	28.97	90.4	7.22	441

S7

Date	Depth (m)	Temp (C)	Cond (ms/cm)	Turb (ntu)	pH	Sal (ppt)	D.O. (%sat)	D.O. (mg/L)	ORP (mv)
6/06/2025	0.3	17.28	41.46	2.4	7.94	26.55	99.8	8.18	438
6/06/2025	0.5	17.28	41.46	2.5	7.94	26.55	99.8	8.18	438
6/06/2025	1.0	17.28	41.43	3.4	7.94	26.53	100.2	8.22	438
6/06/2025	1.5	17.31	41.47	4.5	7.95	26.56	100.6	8.24	438
6/06/2025	2.0	17.79	42.35	5.2	7.88	27.18	98.5	7.96	439
6/06/2025	2.5	18.11	43.07	9.6	7.81	27.7	87.3	6.99	440
Average		17.51	41.87	4.60	7.91	26.85	97.70	7.96	438.50
Stdev		0.36	0.69	2.69	0.06	0.49	5.14	0.49	0.84
Minimum		17.28	41.43	2.4	7.81	26.53	87.3	6.99	438
Maximum		18.11	43.07	9.6	7.95	27.7	100.6	8.24	440

S8

Date	Depth (m)	Temp (C)	Cond (ms/cm)	Turb (ntu)	pH	Sal (ppt)	D.O. (%sat)	D.O. (mg/L)	ORP (mv)
6/06/2025	0.3	17.26	41.43	5.0	7.97	26.53	100.7	8.25	437
6/06/2025	0.5	17.4	41.69	6.5	7.96	26.72	100.3	8.19	438
6/06/2025	1.0	17.54	42.18	6.7	7.94	27.06	100.2	8.14	438
6/06/2025	1.5	18.11	42.87	7.5	7.86	27.56	95.8	7.68	439
6/06/2025	2.0	18.08	43.37	8.5	7.82	27.92	90.7	7.26	439
6/06/2025	2.5	18.74	45.38	9.8	7.67	29.36	80.7	6.32	441
Average		17.86	42.82	7.33	7.87	27.53	94.73	7.64	438.67
Stdev		0.56	1.45	1.67	0.11	1.04	7.88	0.75	1.37
Minimum		17.26	41.43	5	7.67	26.53	80.7	6.32	437
Maximum		18.74	45.38	9.8	7.97	29.36	100.7	8.25	441

S9

Date	Depth (m)	Temp (C)	Cond (ms/cm)	Turb (ntu)	pH	Sal (ppt)	D.O. (%sat)	D.O. (mg/L)	ORP (mv)
12/06/2025	0.3	16.12	45.09	1.8	7.82	29.15	96.4	7.96	567
12/06/2025	0.5	16.12	45.08	3.0	7.83	29.14	97.2	8.02	566
12/06/2025	1.0	16.03	45.06	4.0	7.83	29.13	97.3	8.05	565
12/06/2025	1.5	15.93	45.09	4.7	7.82	29.15	96.1	7.96	565
12/06/2025	2.0	15.93	45.09	5.6	7.82	29.15	95.5	7.92	564
12/06/2025	2.5	15.93	45.10	5.7	7.82	29.16	95.5	7.92	563
12/06/2025	3.0	15.93	45.10	8.1	7.82	29.16	95.6	7.93	563
Average		16.00	45.09	4.70	7.82	29.15	96.23	7.97	564.71
Stdev		0.09	0.01	2.05	0.00	0.01	0.77	0.05	1.50
Minimum		15.93	45.06	1.8	7.82	29.13	95.5	7.92	563
Maximum		16.12	45.1	8.1	7.83	29.16	97.3	8.05	567

Crangan Bay

C1

Date	Depth (m)	Temp (C)	Cond (ms/cm)	Turb (ntu)	pH	Sal (ppt)	D.O. (%sat)	D.O. (mg/L)	ORP (mv)
12/06/2025	0.3	15.58	42.91	1.8	7.87	27.58	102	8.60	531
12/06/2025	0.5	15.52	42.98	3.0	7.87	27.63	101.9	8.60	531
12/06/2025	1.0	16.13	43.79	4.0	7.81	28.22	97.6	8.10	532
12/06/2025	1.5	15.66	43.66	4.7	7.86	28.12	101	8.47	532
12/06/2025	2.0	16.33	44.00	5.6	7.78	28.37	94.8	7.83	532
12/06/2025	2.5	16.61	44.14	5.7	7.77	28.47	94.2	7.73	531
12/06/2025	3.0	16.72	44.28	7.2	7.75	28.57	91.9	7.53	531
Average		16.08	43.68	4.57	7.82	28.14	97.63	8.12	531.43
Stdev		0.50	0.54	1.81	0.05	0.39	4.11	0.44	0.53
Minimum		15.52	42.91	1.8	7.75	27.58	91.9	7.53	531
Maximum		16.72	44.28	7.2	7.87	28.57	102	8.6	532

C2

Date	Depth (m)	Temp (C)	Cond (ms/cm)	Turb (ntu)	pH	Sal (ppt)	D.O. (%sat)	D.O. (mg/L)	ORP (mv)
12/06/2025	0.3	15.67	42.71	1.8	7.86	27.44	102.9	8.66	523
12/06/2025	0.5	15.71	43.00	3.0	7.85	27.65	102.3	8.59	524
12/06/2025	1.0	16.03	43.95	4.0	7.82	28.33	100.9	8.39	524
12/06/2025	1.5	16.54	43.98	4.7	7.78	28.35	97.8	8.05	524
12/06/2025	2.0	16.45	43.76	5.6	7.78	28.19	96.7	7.98	524
Average		16.08	43.48	3.82	7.82	27.99	100.12	8.33	523.80
Stdev		0.40	0.59	1.48	0.04	0.42	2.75	0.31	0.45
Minimum		15.67	42.71	1.8	7.78	27.44	96.7	7.98	523
Maximum		16.54	43.98	5.6	7.86	28.35	102.9	8.66	524

C3

Date	Depth (m)	Temp (C)	Cond (ms/cm)	Turb (ntu)	pH	Sal (ppt)	D.O. (%sat)	D.O. (mg/L)	ORP (mv)
12/06/2025	0.3	16.2	43.38	1.9	7.78	27.92	98.1	8.15	518
12/06/2025	0.5	16.2	43.38	3.3	7.78	27.92	98.2	8.15	518
12/06/2025	1.0	16.21	43.38	4.1	7.79	27.92	98.9	8.21	519
12/06/2025	1.5	16.26	43.44	5.8	7.8	27.96	100.3	8.31	519
12/06/2025	2.0	16.27	43.45	6.6	7.8	27.97	100.4	8.32	520
Average		16.23	43.41	4.34	7.79	27.94	99.18	8.23	518.80
Stdev		0.03	0.04	1.89	0.01	0.02	1.11	0.08	0.84
Minimum		16.2	43.38	1.9	7.78	27.92	98.1	8.15	518
Maximum		16.27	43.45	6.6	7.8	27.97	100.4	8.32	520

C4

Date	Depth (m)	Temp (C)	Cond (ms/cm)	Turb (ntu)	pH	Sal (ppt)	D.O. (%sat)	D.O. (mg/L)	ORP (mv)
12/06/2025	0.3	15.97	43.07	1.8	7.8	27.7	100.4	8.39	516
12/06/2025	0.5	15.97	43.05	4.1	7.8	27.68	100.6	8.41	516
12/06/2025	1.0	15.98	43.13	4.4	7.81	27.74	101.2	8.45	517
Average		15.97	43.08	3.43	7.80	27.71	100.73	8.42	516.33
Stdev		0.01	0.04	1.42	0.01	0.03	0.42	0.03	0.58
Minimum		15.97	43.05	1.8	7.8	27.68	100.4	8.39	516
Maximum		15.98	43.13	4.4	7.81	27.74	101.2	8.45	517

C. Seagrass Data – Analysis of Transects

Northern Shore Summerland Point, Frying Pan Bay

[illegible]

Transect F1									Surveyed 16 June 2025		
		Seagrasses			Algae						
Long=1 Short=2	Fouling 0,1,2	Zostera % cover	Halophila % cover	Total seagrasses	Codium % cover	Cystoseira % cover	Caulerpa % cover	% algae Other	Total Algae	% Bare Ground	Total Cover
2	0	55	0	55	0	0	0	0	0	45	55
2	0	90	0	90	0	0	0	0	0	10	90
2	0	55	0	55	0	0	0	0	0	45	55
2	0	95	0	95	0	0	0	0	0	5	95
2	0	85	0	85	0	0	0	0	0	15	85
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	95	0	95	0	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	0	5	95
2	0	100	0	100	0	0	0	0	0	0	100
2	0	95	0	95	0	0	0	0	0	5	95
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	95	0	95	0	0	0	0	0	5	95
2	0	100	0	100	0	0	0	0	0	0	100
2	0	90	0	90	0	0	0	0	0	10	90
2	0	85	5	90	0	0	0	0	0	10	90
2	0	95	0	95	0	0	0	0	0	5	95
2	0	100	0	100	0	0	0	0	0	0	100
2	0	85	0	85	0	0	0	0	0	15	85
2	0	85	0	85	0	0	0	0	0	15	85
2	0	45	0	45	0	0	0	0	0	55	45
2	0	80	5	85	0	0	0	0	0	15	85
2	0	85	0	85	0	0	0	0	0	15	85
2	0	85	0	85	0	0	0	0	0	15	85
2	0	75	2	77	0	0	0	0	0	23	77
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	50	0	50	0	0	0	0	0	50	50
2	0	85	0	85	0	0	0	0	0	15	85
2	0	85	0	85	0	0	0	0	0	15	85
2	0	85	0	85	0	0	0	0	0	15	85
2	0	75	0	75	0	0	0	0	0	25	75
2	0	85	0	85	0	0	0	0	0	15	85
2	0	95	0	95	0	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	0	5	95
2	0	75	0	75	0	0	0	0	0	25	75
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	95	0	95	0	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	0	5	95
2	0	100	0	100	0	0	0	0	0	0	100
2	0	95	0	95	0	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	0	5	95
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	90	0	90	0	0	0	0	0	10	90
2	0	75	0	75	0	10	0	0	10	15	85
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	95	0	95	0	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	0	5	95
2	0	100	0	100	0	0	0	0	0	0	100
2	0	90	0	90	0	0	0	0	0	10	90
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
Average		91.4	0.2	91.6	0.0	0.1	0.0	0.0	0.1	8.3	91.7

Transect F4									Surveyed 16 June 2025		
		Seagrasses			Algae						
Long=1 Short=2	Fouling 0,1,2	<i>Zostera</i> % cover	<i>Halophila</i> % cover	Total Seagrasses	<i>Codium</i> % cover	<i>Cystoseira</i> % cover	<i>Caulerpa</i> % cover	% algae Other	Total Algae	% Bare Ground	Total Cover
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	80	0	80	0	0	0	0	0	20	80
1	0	80	0	80	0	0	0	0	0	20	80
0	0	0	0	0	0	0	0	0	0	100	0
0	0	0	0	0	0	0	0	0	0	100	0
0	0	0	0	0	0	0	0	0	0	100	0
0	0	0	0	0	0	0	0	0	0	100	0
0	0	0	0	0	0	0	0	0	0	100	0
0	0	0	0	0	0	0	0	0	0	100	0
2	0	50	0	50	0	0	0	0	0	50	50
2	0	90	0	90	0	0	0	0	0	10	90
2	0	60	0	60	0	0	0	0	0	40	60
2	0	95	0	95	0	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	0	5	95
2	0	75	0	75	0	0	0	0	0	25	75
2	0	85	0	85	0	0	0	0	0	15	85
2	0	85	0	85	0	0	0	0	0	15	85
2	0	85	0	85	0	0	0	0	0	15	85
2	0	75	0	75	0	0	0	0	0	25	75
2	0	75	0	75	0	0	0	0	0	25	75
2	0	70	5	75	0	0	0	0	0	25	75
2	0	65	0	65	0	0	0	0	0	35	65
2	0	80	10	90	0	0	0	0	0	10	90
2	0	90	0	90	0	0	0	0	0	10	90
2	0	60	5	65	0	0	0	0	0	35	65
2	0	70	5	75	0	0	0	0	0	25	75
2	0	75	5	80	0	0	0	0	0	20	80
2	0	75	15	90	0	0	0	0	0	10	90
2	0	80	15	95	0	0	0	0	0	5	95
2	0	80	5	85	0	0	0	0	0	15	85
2	0	65	0	65	0	0	0	0	0	35	65
2	0	85	0	85	0	0	0	0	0	15	85
2	0	75	0	75	0	0	0	0	0	25	75
2	0	95	0	95	0	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	0	5	95
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	95	0	95	0	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	0	5	95
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	95	0	95	0	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	0	5	95
2	0	85	0	85	0	0	0	0	0	15	85
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	95	0	95	0	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	0	5	95
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	95	0	95	0	0	0	0	0	5	95
2	0	85	0	85	0	0	0	0	0	15	85
2	0	80	0	80	0	0	0	0	0	20	80
2	0	85	0	85	0	0	0	0	0	15	85
2	0	85	0	85	0	0	0	0	0	15	85
2	0	90	0	90	0	0	0	0	0	10	90
2	0	95	0	95	0	0	0	0	0	5	95
Average		79.7	1.0	80.7	0.0	0.0	0.0	0.0	0.0	19.3	80.7

Transect F5									Surveyed 17 June 2025			
Long=1 Short=2	Fouling 0,1,2	Seagrasses			Algae				% algae Other	Total Algae	% Bare Ground	Total Cover
		<i>Zostera</i> % cover	<i>Halophila</i> % cover	Total Seagrasses	<i>Codium</i> % cover	<i>Cystoseira</i> % cover	<i>Caulerpa</i> % cover					
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	75	0	75	0	0	0	0	0	25	75	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	65	0	65	0	0	0	0	0	35	65	
0	0	0	0	0	0	0	0	0	0	100	0	
0	0	0	0	0	0	0	0	0	0	100	0	
2	0	35	0	35	0	0	0	0	0	65	35	
2	0	65	0	65	0	0	0	0	0	35	65	
2	0	40	0	40	0	0	0	0	0	60	40	
0	0	0	0	0	0	0	0	0	0	100	0	
2	0	30	0	30	0	0	0	0	0	70	30	
2	0	30	0	30	0	0	0	0	0	70	30	
2	0	45	0	45	0	0	0	0	0	55	45	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	75	0	75	0	0	0	0	0	25	75	
2	0	65	0	65	0	0	0	0	0	35	65	
2	0	0	10	10	0	0	0	0	0	90	10	
0	0	0	0	0	0	0	0	0	0	100	0	
2	0	65	5	70	0	0	0	0	0	30	70	
2	0	70	5	75	0	0	0	0	0	25	75	
2	0	75	5	80	0	0	0	0	0	20	80	
2	0	75	0	75	0	0	0	0	0	25	75	
2	0	75	0	75	0	0	0	0	0	25	75	
2	0	80	0	80	0	0	0	0	0	20	80	
2	0	80	5	85	0	0	0	0	0	15	85	
2	0	85	5	90	0	0	0	0	0	10	90	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	80	5	85	0	0	0	0	0	15	85	
2	0	70	5	75	0	0	0	0	0	25	75	
2	0	85	5	90	0	0	0	0	0	10	90	
2	0	75	5	80	0	0	0	0	0	20	80	
2	0	70	5	75	0	0	0	0	0	25	75	
2	0	80	5	85	0	0	0	0	0	15	85	
2	0	85	5	90	0	0	0	0	0	10	90	
2	0	75	5	80	0	0	0	0	0	20	80	
2	0	75	3	78	0	0	0	0	0	22	78	
2	0	65	0	65	0	0	0	0	0	35	65	
2	0	65	0	65	0	0	0	0	0	35	65	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	65	5	70	0	0	0	0	0	30	70	
2	0	85	3	88	0	0	0	0	0	12	88	
2	0	75	0	75	0	0	0	0	0	25	75	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	75	0	75	0	0	0	0	0	25	75	
2	0	75	0	75	0	0	0	0	0	25	75	
2	0	75	0	75	0	0	0	0	0	25	75	
2	0	75	0	75	0	0	0	0	0	25	75	
2	0	75	0	75	0	0	0	0	0	25	75	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	75	0	75	0	0	0	0	0	25	75	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	75	5	80	0	0	0	0	0	20	80	
2	0	85	5	90	0	0	0	0	0	10	90	
Average		70.4	1.4	71.9	0.0	0.0	0.0	0.0	0.0	28.1	71.9	

Transect F6									Surveyed 17 June 2025		
Seagrasses					Algae						
Long=1 Short=2	Fouling 0,1,2	Zostera % cover	Halophila % cover	Total Seagrasses	Codium % cover	Cystoseira % cover	Caulerpa % cover	% algae Other	Total Algae	% Bare Ground	Total Cover
2	0	75	0	75	0	0	0	0	0	25	75
2	0	90	0	90	0	0	0	0	0	10	90
2	0	85	0	85	0	0	0	0	0	15	85
2	0	90	0	90	0	0	0	0	0	10	90
2	0	50	0	50	0	0	0	0	0	50	50
2	0	85	0	85	0	0	0	0	0	15	85
2	0	90	0	90	0	0	0	0	0	10	90
2	0	95	0	95	0	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	0	5	95
2	0	85	0	85	0	0	0	0	0	15	85
2	0	85	0	85	0	0	0	0	0	15	85
2	0	90	0	90	0	0	0	0	0	10	90
2	0	85	0	85	0	0	0	0	0	15	85
2	0	75	0	75	0	0	0	0	0	25	75
2	0	95	5	100	0	0	0	0	0	0	100
2	0	95	5	100	0	0	0	0	0	0	100
2	0	95	5	100	0	0	0	0	0	0	100
2	0	90	5	95	0	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	0	5	95
2	0	90	0	90	0	0	0	0	0	10	90
2	0	95	0	95	0	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	0	5	95
2	0	90	5	95	0	0	0	0	0	5	95
2	0	90	5	95	0	0	0	0	0	5	95
2	0	90	5	95	0	0	0	0	0	5	95
2	0	90	5	95	0	0	0	0	0	5	95
2	0	85	5	90	0	0	0	0	0	10	90
2	0	85	5	90	0	0	0	0	0	10	90
2	0	80	5	85	0	0	0	0	0	15	85
2	0	85	5	90	0	0	0	0	0	10	90
2	0	80	5	85	0	0	0	0	0	15	85
2	0	85	5	90	0	0	0	0	0	10	90
2	0	75	5	80	0	0	0	0	0	20	80
2	0	95	0	95	0	0	0	0	0	5	95
2	0	90	5	95	0	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	0	5	95
2	0	85	0	85	0	0	0	0	0	15	85
2	0	90	5	95	0	0	0	0	0	5	95
2	0	85	5	90	0	0	0	0	0	10	90
2	0	90	5	95	0	0	0	0	0	5	95
2	0	90	5	95	0	0	0	0	0	5	95
2	0	90	0	90	0	0	0	0	0	10	90
2	0	75	5	80	0	0	0	0	0	20	80
2	0	80	5	85	0	0	0	0	0	15	85
2	0	75	5	80	0	0	0	0	0	20	80
2	0	75	0	75	0	0	0	0	0	25	75
2	0	75	5	80	0	0	0	0	0	20	80
2	0	75	0	75	0	0	0	0	0	25	75
2	0	65	0	65	0	0	0	0	0	35	65
2	0	65	0	65	0	0	0	0	0	35	65
2	0	75	0	75	0	0	0	0	0	25	75
2	0	75	5	80	0	0	0	0	0	20	80
2	0	75	5	80	0	0	0	0	0	20	80
2	0	80	5	85	0	0	0	0	0	15	85
2	0	75	10	85	0	0	0	0	0	15	85
2	0	75	5	80	0	0	0	0	0	20	80
2	0	80	5	85	0	0	0	0	0	15	85
2	0	65	5	70	0	0	0	0	0	30	70
2	0	85	0	85	0	0	0	0	0	15	85
2	0	95	0	95	0	0	0	0	0	5	95
2	0	85	5	90	0	0	0	0	0	10	90
2	0	95	0	95	0	0	0	0	0	5	95
Average		85.0	2.5	87.5	0.0	0.0	0.0	0.0	0.0	12.5	87.5

Transect F7					Surveyed 17 June 2025							
Long=1 Short=2	Fouling 0,1,2	Seagrasses			Algae				% algae Other	Total Algae	% Bare Ground	Total Cover
		Zostera % cover	Halophila % cover	Total Seagrasses	Codium % cover	Cystoseira % cover	Caulerpa % cover					
2	0	60	0	60	0	0	0	0	0	40	60	
2	0	55	0	55	0	0	0	0	0	45	55	
2	0	70	2	72	0	0	0	0	0	28	72	
2	0	85	5	90	0	0	0	0	0	10	90	
2	0	85	5	90	0	0	0	0	0	10	90	
2	0	85	5	90	0	0	0	0	0	10	90	
2	0	80	2	82	0	0	0	0	0	18	82	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	75	5	80	0	0	0	0	0	20	80	
2	2	55	10	65	0	0	0	0	0	35	65	
2	2	55	10	65	0	0	0	0	0	35	65	
2	2	60	15	75	0	0	0	0	0	25	75	
2	2	60	10	70	0	0	0	0	0	30	70	
2	2	60	10	70	0	0	0	0	0	30	70	
2	2	80	5	85	0	0	0	0	0	15	85	
2	2	80	5	85	0	0	0	0	0	15	85	
2	2	75	5	80	0	0	0	0	0	20	80	
2	2	85	5	90	0	0	0	0	0	10	90	
2	2	80	5	85	0	0	0	0	0	15	85	
2	0	85	5	90	0	0	0	0	0	10	90	
2	0	65	10	75	0	0	0	0	0	25	75	
2	0	65	5	70	0	0	0	0	0	30	70	
2	0	65	10	75	0	0	0	0	0	25	75	
2	0	70	15	85	0	0	0	0	0	15	85	
2	0	60	5	65	0	0	0	0	0	35	65	
2	0	70	10	80	0	0	0	0	0	20	80	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	70	15	85	0	0	0	0	0	15	85	
2	0	85	5	90	0	0	0	0	0	10	90	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	85	2	87	0	0	0	0	0	13	87	
2	0	65	0	65	0	0	0	0	0	35	65	
2	0	50	2	52	0	0	0	0	0	48	52	
2	0	30	5	35	0	0	0	0	0	65	35	
2	0	50	0	50	0	0	0	0	0	50	50	
2	0	50	5	55	0	0	0	0	0	45	55	
2	0	60	5	65	0	0	0	0	0	35	65	
2	0	60	0	60	0	0	0	0	0	40	60	
2	0	80	8	88	0	0	0	0	0	12	88	
2	0	75	5	80	0	0	0	0	0	20	80	
2	0	70	5	75	0	0	0	0	0	25	75	
2	0	85	5	90	0	0	0	0	0	10	90	
2	0	85	5	90	0	0	0	0	0	10	90	
2	0	75	5	80	0	0	0	0	0	20	80	
2	0	75	5	80	0	0	0	0	0	20	80	
2	0	70	5	75	0	0	0	0	0	25	75	
2	0	55	15	70	0	0	0	0	0	30	70	
2	0	55	5	60	0	0	0	0	0	40	60	
2	0	55	5	60	0	0	0	0	0	40	60	
2	0	90	5	95	0	0	0	0	0	5	95	
2	0	90	5	95	0	0	0	0	0	5	95	
2	0	90	5	95	0	0	0	0	0	5	95	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	90	5	95	0	0	0	0	0	5	95	
2	0	90	5	95	0	0	0	0	0	5	95	
2	0	85	10	95	0	0	0	0	0	5	95	
2	0	50	15	65	0	0	0	0	0	35	65	
2	0	85	10	95	0	0	0	0	0	5	95	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	75	0	75	0	0	0	0	0	25	75	
Average		74.3	4.9	79.3	0.0	0.0	0.0	0.0	0.0	20.7	79.3	

Western Shore Summerland Point

Transect E7		Surveyed 16 June 2025										
		Seagrasses			Algae							
Long=1 Short=2	Fouling 0,1,2	Zostera % cover	Halophila % cover	Total Seagrasses	Codium % cover	Cystoseira % cover	Caulerpa % cover	% algae Other	Total Algae	% Bare Ground	Total Cover	
1	0	45	0	45	0	0	0	0	0	55	45	
1	0	60	0	60	0	0	0	0	0	40	60	
1	0	80	0	80	0	0	0	0	0	20	80	
1	0	70	0	70	0	0	0	0	0	30	70	
1	0	60	0	60	0	0	0	0	0	40	60	
1	0	65	0	65	0	0	0	0	0	35	65	
2	0	45	0	45	0	0	0	0	0	55	45	
2	0	5	0	5	0	0	0	0	0	95	5	
2	0	5	0	5	0	0	0	0	0	95	5	
2	0	50	0	50	0	0	0	0	0	50	50	
2	0	65	0	65	0	0	0	0	0	35	65	
2	0	50	0	50	0	0	0	0	0	50	50	
2	0	80	0	80	0	0	0	0	0	20	80	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	75	0	75	0	0	0	0	0	25	75	
2	0	65	0	65	0	0	0	0	0	35	65	
2	0	70	0	70	0	0	0	0	0	30	70	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	80	10	90	0	0	0	0	0	10	90	
2	0	70	10	80	0	0	0	0	0	20	80	
2	0	80	5	85	0	0	0	0	0	15	85	
2	0	60	10	70	0	0	0	0	0	30	70	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	80	0	80	0	0	0	0	0	20	80	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	75	0	75	0	0	0	0	0	25	75	
2	0	80	0	80	0	0	0	0	0	20	80	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	85	5	90	0	0	0	0	0	10	90	
2	0	85	5	90	0	0	0	0	0	10	90	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	85	5	90	0	0	0	0	0	10	90	
2	0	93	2	95	0	0	0	0	0	5	95	
2	0	70	5	75	0	0	0	0	0	25	75	
2	0	95	5	100	0	0	0	0	0	0	100	
2	0	65	5	70	0	0	0	0	0	30	70	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	80	2	82	0	0	0	0	0	18	82	
2	0	70	5	75	0	0	0	0	0	25	75	
2	0	90	2	92	0	0	0	0	0	8	92	
2	0	85	2	87	0	0	0	0	0	13	87	
2	0	75	5	80	0	0	0	0	0	20	80	
2	0	90	5	95	0	0	0	0	0	5	95	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	85	0	85	0	0	0	0	0	15	85	
Average		79.6	1.3	80.9	0.0	0.0	0.0	0.0	0.0	19.1	80.9	

Transect T1									Surveyed 16 June 2025			
Seagrasses					Algae							
Long=1 Short=2	Fouling 0,1,2	Zostera % cover	Halophila % cover	Total Seagrasses	Codium % cover	Cystoseira % cover	Caulerpa % cover	% algae Other	Total Algae	% Bare Ground	Total Cover	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	98	0	98	0	0	0	0	0	2	98	
2	0	98	0	98	0	0	0	0	0	2	98	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	98	0	98	0	0	0	0	0	2	98	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	80	0	80	0	0	0	0	0	20	80	
2	0	98	0	98	0	0	0	0	0	2	98	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	80	0	80	0	0	0	0	0	20	80	
2	0	80	0	80	0	0	0	0	0	20	80	
2	0	40	5	45	0	0	0	0	0	55	45	
2	0	35	0	35	0	0	0	0	0	65	35	
0	0	0	0	0	0	0	0	0	0	100	0	
0	0	0	10	10	0	0	0	0	0	90	10	
2	0	45	10	55	0	0	0	0	0	45	55	
2	0	45	5	50	0	0	0	0	0	50	50	
2	0	20	15	35	0	0	0	0	0	65	35	
2	0	5	45	50	0	0	0	0	0	50	50	
2	0	10	45	55	0	0	0	0	0	45	55	
2	0	45	15	60	0	0	0	0	0	40	60	
2	0	65	0	65	0	0	0	0	0	35	65	
2	0	75	0	75	0	0	0	0	0	25	75	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	35	15	50	0	0	0	0	0	50	50	
2	0	50	10	60	0	0	0	0	0	40	60	
2	0	35	20	55	0	0	0	0	0	45	55	
2	0	60	15	75	0	10	0	0	10	15	85	
2	0	20	40	60	0	0	0	0	0	40	60	
2	0	60	10	70	0	0	0	0	0	30	70	
2	0	75	10	85	0	0	0	0	0	15	85	
2	0	85	15	100	0	0	0	0	0	0	100	
2	0	95	5	100	0	0	0	0	0	0	100	
2	0	90	5	95	0	0	0	0	0	5	95	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	90	5	95	0	0	0	5	5	0	100	
2	0	90	5	95	0	0	0	0	0	5	95	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	80	0	80	0	0	0	20	20	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	90	0	90	0	5	0	5	10	0	100	
2	0	95	0	95	0	5	0	0	5	0	100	
2	0	85	0	85	0	0	0	15	15	0	100	
2	0	95	2	97	0	0	0	0	0	3	97	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	80	10	90	0	0	0	0	0	10	90	
2	0	95	5	100	0	0	0	0	0	0	100	
2	0	95	5	100	0	0	0	0	0	0	100	
2	0	85	15	100	0	0	0	0	0	0	100	
2	0	85	15	100	0	0	0	0	0	0	100	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	85	15	100	0	0	0	0	0	0	100	
2	0	90	5	95	0	0	0	5	5	0	100	
2	0	95	0	95	0	0	0	0	0	5	95	
Average		76.8	5.5	82.3	0.0	0.3	0.0	0.7	1.0	16.6	83.4	

Transect T2									Surveyed 16 June 2025			
Seagrasses					Algae							
Long=1 Short=2	Fouling 0,1,2	Zostera % cover	Halophila % cover	Total Seagrasses	Codium % cover	Cystoseira % cover	Caulerpa % cover	% algae Other	Total Algae	% Bare Ground	Total Cover	
0	0	0	0	0	0	0	0	0	0	100	0	
0	0	0	0	0	0	0	0	0	0	100	0	
2	0	30	0	30	0	0	0	0	0	70	30	
2	0	60	0	60	0	0	0	0	0	40	60	
2	0	50	0	50	0	0	0	0	0	50	50	
2	0	5	0	5	0	0	0	0	0	95	5	
0	0	0	0	0	0	0	0	0	0	100	0	
0	0	0	0	0	0	0	0	0	0	100	0	
0	0	0	0	0	0	0	0	0	0	100	0	
2	0	55	0	55	0	0	0	0	0	45	55	
2	0	80	0	80	0	0	0	0	0	20	80	
2	0	30	0	30	0	0	0	0	0	70	30	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	85	5	90	0	0	0	0	0	10	90	
2	0	90	5	95	0	0	0	0	0	5	95	
2	0	95	5	100	0	0	0	0	0	0	100	
2	0	95	5	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	95	5	100	0	0	0	0	0	0	100	
2	0	95	2	97	0	0	0	0	0	3	97	
2	0	75	5	80	0	0	0	0	0	20	80	
2	0	95	5	100	0	0	0	0	0	0	100	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	85	10	95	0	0	0	0	0	5	95	
2	0	90	5	95	0	0	0	0	0	5	95	
2	0	90	5	95	0	0	0	0	0	5	95	
2	0	85	10	95	0	0	0	0	0	5	95	
2	0	80	10	90	0	0	0	0	0	10	90	
2	0	75	10	85	0	0	0	0	0	15	85	
2	0	65	0	65	0	0	0	0	0	35	65	
0	0	0	0	0	0	0	0	0	0	100	0	
2	0	75	0	75	0	0	0	0	0	25	75	
2	0	60	15	75	0	0	0	0	0	25	75	
2	0	95	5	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	95	5	100	0	0	0	0	0	0	100	
2	0	95	5	100	0	0	0	0	0	0	100	
2	0	75	10	85	0	0	0	0	0	15	85	
2	0	80	5	85	0	0	0	0	0	15	85	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	90	0	90	0	0	0	5	5	5	95	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	60	0	60	0	0	0	0	0	40	60	
2	0	100	0	100	0	0	0	0	0	0	100	
2	1	95	0	95	0	0	0	0	0	5	95	
2	1	90	0	90	0	10	0	0	10	0	100	
2	1	100	0	100	0	0	0	0	0	0	100	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	75	0	75	0	0	0	0	0	25	75	
2	0	75	0	75	0	0	0	0	0	25	75	
2	0	75	0	75	0	0	0	0	0	25	75	
2	0	80	0	80	0	0	0	0	0	20	80	
2	0	75	0	75	0	0	0	0	0	25	75	
Average		76.1	1.9	78.0	0.0	0.1	0.0	0.1	0.2	21.7	78.3	

Transect T3									Surveyed 16 June 2025			
Seagrasses					Algae							
Long=1 Short=2	Fouling 0,1,2	Zostera % cover	Halophila % cover	Total seagrasses	Codium % cover	Cystoseira % cover	Caulerpa % cover	% algae Other	Total Algae	% Bare Ground	Total Cover	
2	0	70	0	70	0	0	0	0	0	30	70	
2	0	45	0	45	0	0	0	0	0	55	45	
2	0	45	0	45	0	0	0	0	0	55	45	
2	0	50	0	50	0	0	0	0	0	50	50	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	75	0	75	0	0	0	0	0	25	75	
2	0	50	0	50	0	0	0	0	0	50	50	
2	0	60	0	60	0	0	0	0	0	40	60	
2	0	85	5	90	0	0	0	0	0	10	90	
2	0	70	0	70	0	0	0	0	0	30	70	
2	0	75	5	80	0	0	0	0	0	20	80	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	80	0	80	0	0	0	0	0	20	80	
2	0	80	0	80	0	0	0	0	0	20	80	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	50	0	50	0	0	0	0	0	50	50	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	75	0	75	0	0	0	0	0	25	75	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	90	5	95	0	0	0	0	0	5	95	
2	0	90	2	92	0	0	0	0	0	8	92	
2	0	95	2	97	0	0	0	0	0	3	97	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	80	0	80	0	0	0	0	0	20	80	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	60	0	60	0	0	0	0	0	40	60	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	80	0	80	0	0	0	0	0	20	80	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	75	0	75	0	0	0	0	0	25	75	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	75	5	80	0	0	0	0	0	20	80	
2	0	75	0	75	0	0	0	0	0	25	75	
2	0	70	5	75	0	0	0	0	0	25	75	
2	0	75	0	75	0	0	0	0	0	25	75	
2	0	75	0	75	0	0	0	0	0	25	75	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	90	5	95	0	0	0	0	0	5	95	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	90	5	95	0	0	0	0	0	5	95	
2	0	100	0	100	0	0	0	0	0	0	100	
Average		84.8	0.6	85.4	0.0	0.0	0.0	0.0	0.0	14.6	85.4	

Transect T4									Surveyed 16 June 2025			
Long=1 Short=2	Fouling 0,1,2	Seagrasses			Algae				% algae Other	Total Algae	% Bare Ground	Total Cover
		Zostera % cover	Halophila % cover	Total Seagrasses	Codium % cover	Cystoseira % cover	Caulerpa % cover					
2	0	70	0	70	0	0	0	0	0	0	30	70
2	0	80	0	80	0	0	0	0	0	0	20	80
2	0	40	5	45	0	0	0	0	0	0	55	45
2	0	75	0	75	0	0	0	0	0	0	25	75
2	0	50	0	50	0	0	0	0	0	0	50	50
2	0	50	0	50	0	0	0	0	0	0	50	50
2	0	80	5	85	0	0	0	0	0	0	15	85
2	0	70	0	70	0	0	0	0	0	0	30	70
2	0	95	0	95	0	0	0	0	0	0	5	95
2	0	80	0	80	0	0	0	0	0	0	20	80
2	0	75	5	80	0	0	0	0	0	0	20	80
2	0	80	0	80	0	0	0	0	0	0	20	80
2	0	75	0	75	0	0	0	0	0	0	25	75
2	0	60	0	60	0	0	0	0	0	0	40	60
2	0	40	0	40	0	0	0	0	0	0	60	40
2	0	90	5	95	0	0	0	0	0	0	5	95
2	0	70	0	70	0	0	0	0	0	0	30	70
2	0	80	0	80	0	0	0	0	0	0	20	80
2	0	50	0	50	0	0	0	0	0	0	50	50
2	0	90	0	90	0	0	0	0	0	0	10	90
2	0	95	0	95	0	0	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	0	0	5	95
2	0	100	0	100	0	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	0	100
2	0	95	0	95	0	0	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	0	0	5	95
2	0	100	0	100	0	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	0	100
2	0	80	0	80	0	0	0	0	0	0	20	80
2	0	70	10	80	0	0	0	0	0	0	20	80
2	0	90	0	90	0	0	0	0	0	0	10	90
2	0	100	0	100	0	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	0	100
2	0	95	0	95	0	0	0	0	0	0	5	95
2	0	100	0	100	0	0	0	0	0	0	0	100
2	0	98	2	100	0	0	0	0	0	0	0	100
2	0	95	0	95	0	0	0	0	0	0	5	95
2	0	100	0	100	0	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	0	100
2	0	95	0	95	0	0	0	0	0	0	5	95
2	0	90	0	90	0	10	0	0	0	10	0	100
2	0	100	0	100	0	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	0	100
2	0	70	0	70	0	0	0	0	0	0	30	70
2	0	80	5	85	0	0	0	0	0	0	15	85
2	0	80	0	80	0	0	0	0	0	0	20	80
2	0	85	5	90	0	0	0	0	0	0	10	90
2	0	75	5	80	0	0	0	0	0	0	20	80
2	0	50	0	50	0	0	0	0	0	0	50	50
2	0	95	0	95	0	0	0	0	0	0	5	95
2	0	95	5	100	0	0	0	0	0	0	0	100
2	0	85	0	85	0	0	0	0	0	0	15	85
Average		86.9	0.8	87.6	0.0	0.1	0.0	0.0	0.0	0.1	12.2	87.8

Transect T5									Surveyed 16 June 2025			
Long=1 Short=2	Fouling 0,1,2	Seagrasses			Algae				% algae Other	Total Algae	% Bare Ground	Total Cover
		Zostera % cover	Halophila % cover	Total seagrasses	Codium % cover	Cystoseira % cover	Caulerpa % cover					
2	0	70	0	70	0	0	0	0	0	30	70	
2	0	30	0	30	0	0	0	0	0	70	30	
2	0	70	0	70	0	0	0	0	0	30	70	
2	0	70	0	70	0	0	0	0	0	30	70	
2	0	80	0	80	0	0	0	0	0	20	80	
2	0	55	5	60	0	0	0	0	0	40	60	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	75	0	75	0	0	0	0	0	25	75	
2	0	40	0	40	0	5	0	0	5	55	45	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	90	0	90	0	5	0	0	5	5	95	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	50	0	50	0	0	0	0	0	50	50	
2	0	70	0	70	0	0	0	0	0	30	70	
2	0	50	10	60	0	0	0	0	0	40	60	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	70	0	70	0	0	0	0	0	30	70	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	70	5	75	0	0	0	0	0	25	75	
2	0	65	0	65	0	0	0	0	0	35	65	
2	0	80	5	85	0	0	0	0	0	15	85	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	80	0	80	0	0	0	0	0	20	80	
2	0	50	2	52	0	0	0	0	0	48	52	
2	0	75	0	75	0	0	0	0	0	25	75	
2	0	65	0	65	0	0	0	0	0	35	65	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	80	0	80	0	0	0	0	0	20	80	
2	0	65	0	65	0	0	0	0	0	35	65	
2	0	75	0	75	0	0	0	0	0	25	75	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	90	5	95	0	0	0	0	0	5	95	
0	0	0	0	0	0	0	0	0	0	100	0	
2	0	70	0	70	0	0	0	0	0	30	70	
2	0	75	5	80	0	0	0	0	0	20	80	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	90	0	90	0	0	0	0	0	10	90	
1	0	100	0	100	0	0	0	0	0	0	100	
1	0	100	0	100	0	0	0	0	0	0	100	
1	0	80	5	85	0	0	0	0	0	15	85	
1	0	100	0	100	0	0	0	0	0	0	100	
1	0	100	0	100	0	0	0	0	0	0	100	
1	0	90	0	90	0	0	0	0	0	10	90	
1	0	25	5	30	0	0	0	0	0	70	30	
1	0	90	0	90	0	0	0	0	0	10	90	
1	0	95	0	95	0	0	0	0	0	5	95	
1	0	100	0	100	0	0	0	0	0	0	100	
2	0	80	0	80	0	0	0	0	0	20	80	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	85	0	85	0	0	0	0	0	15	85	
1	0	100	0	100	0	0	0	0	0	0	100	
1	0	100	0	100	0	0	0	0	0	0	100	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	80	0	80	0	0	0	0	0	20	80	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	80	0	80	0	0	0	0	0	20	80	
0	0	0	0	0	0	0	0	0	0	100	0	
2	0	80	0	80	0	0	0	0	0	20	80	
Average		78.5	0.7	79.1	0.0	0.1	0.0	0.0	0.1	20.7	79.3	

Transect T6					Surveyed 16 June 2025						
Seagrasses					Algae				Total Algae	% Bare Ground	Total Cover
Long=1 Short=2	Fouling 0,1,2	Zostera % cover	Halophila % cover	Total seagrasses	Codium % cover	Cystoseira % cover	Caulerpa % cover	% algae Other			
1	0	50	0	50	0	0	0	0	0	50	50
0	0	0	0	0	0	0	0	0	0	100	0
0	0	0	0	0	0	0	0	0	0	100	0
1	0	50	0	50	0	0	0	0	0	50	50
1	0	75	0	75	0	0	0	0	0	25	75
1	0	80	0	80	0	0	0	0	0	20	80
1	0	85	0	85	0	0	0	0	0	15	85
1	0	85	0	85	0	0	0	0	0	15	85
1	0	95	0	95	0	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	0	5	95
2	0	85	0	85	0	0	0	0	0	15	85
2	0	95	0	95	0	0	0	0	0	5	95
2	0	90	0	90	0	0	0	0	0	10	90
2	0	95	0	95	0	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	0	5	95
2	0	90	0	90	0	0	0	0	0	10	90
2	0	95	0	95	0	0	0	0	0	5	95
2	0	90	0	90	0	0	0	0	0	10	90
2	0	95	0	95	0	0	0	0	0	5	95
2	0	100	0	100	0	0	0	0	0	0	100
2	0	90	0	90	0	0	0	0	0	10	90
2	0	100	0	100	0	0	0	0	0	0	100
2	0	80	0	80	0	0	0	0	0	20	80
2	0	85	0	85	0	0	0	0	0	15	85
2	0	90	0	90	0	0	0	0	0	10	90
2	0	95	0	95	0	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	0	5	95
2	0	85	0	85	0	0	0	0	0	15	85
2	0	85	0	85	0	0	0	0	0	15	85
2	0	90	0	90	0	0	0	0	0	10	90
2	0	95	0	95	0	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	0	5	95
2	0	90	0	90	0	0	0	0	0	10	90
2	0	95	0	95	0	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	0	5	95
2	0	90	0	90	0	0	0	0	0	10	90
2	0	90	0	90	0	0	0	0	0	10	90
2	0	90	0	90	0	0	0	0	0	10	90
2	0	90	0	90	0	0	0	0	0	10	90
2	0	85	0	85	0	0	0	0	0	15	85
2	0	95	0	95	0	0	0	0	0	5	95
2	0	90	0	90	0	0	0	0	0	10	90
2	0	90	0	90	0	0	0	0	0	10	90
2	0	95	0	95	0	0	0	0	0	5	95
2	0	75	5	80	0	0	0	0	0	20	80
2	0	75	5	80	0	0	0	0	0	20	80
2	0	75	5	80	0	0	0	0	0	20	80
2	0	70	5	75	0	0	0	0	0	25	75
2	0	75	5	80	0	0	0	0	0	20	80
2	0	55	5	60	0	0	0	0	0	40	60
2	0	55	5	60	0	0	0	0	0	40	60
2	0	30	10	40	0	0	0	0	0	60	40
2	0	55	10	65	0	0	0	0	0	35	65
2	0	45	15	60	0	0	0	0	0	40	60
2	0	60	5	65	0	0	0	0	0	35	65
2	0	60	0	60	0	0	0	0	0	40	60
2	0	95	0	95	0	0	0	0	0	5	95
2	0	70	5	75	0	0	0	0	0	25	75
2	0	95	0	95	0	0	0	0	0	5	95
2	0	85	0	85	0	0	0	0	0	15	85
2	0	75	0	75	0	0	0	0	0	25	75
2	0	75	10	85	0	0	0	0	0	15	85
2	0	75	10	85	0	0	0	0	0	15	85
2	0	70	5	75	0	0	0	0	0	25	75
2	0	70	5	75	0	0	0	0	0	25	75
2	0	75	5	80	0	0	0	0	0	20	80
Average		79.6	1.8	81.3	0.0	0.0	0.0	0.0	0.0	18.7	81.3

Transect T7									Surveyed 16 June 2025			
Seagrasses					Algae							
Long=1 Short=2	Fouling 0,1,2	Zostera % cover	Halophila % cover	Total seagrasses	Codium % cover	Cystoseira % cover	Caulerpa % cover	% algae Other	Total Algae	% Bare Ground	Total Cover	
2	0	55	0	55	0	0	0	0	0	45	55	
2	0	65	0	65	0	0	0	0	0	35	65	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	80	0	80	0	0	0	0	0	20	80	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	75	0	75	0	0	0	0	0	25	75	
2	0	50	25	75	0	0	0	0	0	25	75	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	65	0	65	0	0	0	0	0	35	65	
2	0	80	0	80	0	0	0	0	0	20	80	
2	0	93	0	93	0	0	0	0	0	7	93	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	92	0	92	0	0	0	0	0	8	92	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	80	5	85	0	0	0	0	0	15	85	
2	0	50	5	55	0	0	0	0	0	45	55	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	75	10	85	0	0	0	0	0	15	85	
2	0	85	5	90	0	0	0	0	0	10	90	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	90	0	90	0	0	0	0	0	10	90	
Average		90.1	0.7	90.8	0.0	0.0	0.0	0.0	0.0	9.2	90.8	

Transect T8									Surveyed 16 June 2025		
		Seagrasses			Algae						
Long=1 Short=2	Fouling 0,1,2	<i>Zostera</i> % cover	<i>Halophila</i> % cover	Total seagrasses	<i>Codium</i> % cover	<i>Cystoseira</i> % cover	<i>Caulerpa</i> % cover	% algae Other	Total Algae	% Bare Ground	Total Cover
1	0	65	0	65	0	0	0	0	0	35	65
1	0	85	0	85	0	0	0	0	0	15	85
1	0	90	0	90	0	0	0	0	0	10	90
1	0	95	0	95	0	0	0	0	0	5	95
1	0	90	0	90	0	0	0	0	0	10	90
1	0	75	0	75	0	0	0	0	0	25	75
1	0	90	2	92	0	0	0	0	0	8	92
1	0	95	0	95	0	0	0	0	0	5	95
1	0	95	0	95	0	0	0	0	0	5	95
1	0	95	0	95	0	0	0	0	0	5	95
1	0	85	0	85	0	0	0	0	0	15	85
1	0	55	5	60	0	0	0	0	0	40	60
1	0	80	0	80	0	0	0	0	0	20	80
1	0	90	0	90	0	0	0	0	0	10	90
1	0	80	0	80	0	0	0	0	0	20	80
1	0	65	20	85	0	0	0	0	0	15	85
1	0	55	5	60	0	0	0	0	0	40	60
1	0	70	0	70	0	0	0	0	0	30	70
1	0	85	0	85	0	0	0	0	0	15	85
1	0	85	5	90	0	0	0	0	0	10	90
1	0	90	0	90	0	0	0	0	0	10	90
1	0	75	10	85	0	0	0	0	0	15	85
1	0	85	0	85	0	0	0	0	0	15	85
1	0	65	0	65	0	0	0	0	0	35	65
1	0	50	5	55	0	0	0	0	0	45	55
1	0	80	0	80	0	0	0	0	0	20	80
1	0	85	0	85	0	0	0	0	0	15	85
1	0	90	0	90	0	0	0	0	0	10	90
1	0	90	0	90	0	0	0	0	0	10	90
1	0	95	0	95	0	0	0	0	0	5	95
1	0	95	0	95	0	0	0	0	0	5	95
1	0	90	0	90	0	0	0	0	0	10	90
1	0	95	0	95	0	0	0	0	0	5	95
1	0	95	0	95	0	0	0	0	0	5	95
1	0	98	0	98	0	0	0	0	0	2	98
1	0	95	0	95	0	0	0	0	0	5	95
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	90	0	90	0	0	0	0	0	10	90
1	0	80	0	80	0	0	0	0	0	20	80
1	0	95	0	95	0	0	0	0	0	5	95
1	0	85	5	90	0	0	0	0	0	10	90
1	0	100	0	100	0	0	0	0	0	0	100
1	0	90	0	90	0	0	0	0	0	10	90
1	0	100	0	100	0	0	0	0	0	0	100
1	0	85	0	85	0	0	0	0	0	15	85
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	95	0	95	0	0	0	0	0	5	95
1	0	95	0	95	0	0	0	0	0	5	95
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	95	0	95	0	0	0	0	0	5	95
1	0	90	0	90	0	0	0	0	0	10	90
1	0	95	0	95	0	0	0	0	0	5	95
1	0	100	0	100	0	0	0	0	0	0	100
1	0	95	0	95	0	0	0	0	0	5	95
1	0	100	0	100	0	0	0	0	0	0	100
1	0	95	0	95	0	0	0	0	0	5	95
1	0	85	0	85	0	0	0	0	0	15	85
1	0	85	0	85	0	0	0	0	0	15	85
1	0	95	0	95	0	0	0	0	0	5	95
1	0	70	0	70	0	0	0	0	0	30	70
1	0	85	0	85	0	0	0	0	0	15	85
1	0	85	0	85	0	0	0	0	0	15	85
1	0	85	0	85	0	0	0	0	0	15	85
Average		87.8	0.8	88.6	0.0	0.0	0.0	0.0	0.0	11.4	88.6

Chain Valley Bay

Transect E1					Surveyed 6 June 2025							
		Seagrasses			Algae							
Long=1 Short=2	Fouling 0,1,2	Zostera % cover	Halophila % cover	Total seagrasses	Codium % cover	Cystoseira % cover	Caulerpa % cover	% algae Other	Total Algae	% Bare Ground	Total Cover	
1	0	100	0	100	0	0	0	0	0	0	100	
1	0	98	0	98	0	2	0	0	2	0	100	
1	0	95	0	95	0	0	0	0	0	5	95	
1	0	90	0	90	0	0	0	0	0	10	90	
2	0	85	0	85	0	0	0	0	0	15	85	
1	0	85	0	85	0	10	0	0	10	5	95	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	75	0	75	0	0	0	0	0	25	75	
2	0	90	0	90	0	5	0	0	5	5	95	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	75	0	75	0	0	0	0	0	25	75	
2	0	65	0	65	0	0	0	0	0	35	65	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	85	0	85	0	0	0	2	2	13	87	
2	0	75	0	75	0	0	0	0	0	25	75	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	65	0	65	0	0	0	0	0	35	65	
2	0	80	2	82	0	0	0	0	0	18	82	
2	0	75	5	80	0	0	0	0	0	20	80	
2	0	75	0	75	0	0	0	0	0	25	75	
2	0	85	0	85	0	5	0	0	5	10	90	
2	0	90	5	95	0	0	0	0	0	5	95	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	98	0	98	0	0	0	0	0	2	98	
2	0	85	0	85	0	5	0	0	5	10	90	
2	0	90	0	90	0	5	0	0	5	5	95	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	80	0	80	0	0	0	0	0	20	80	
2	0	75	0	75	0	0	0	0	0	25	75	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	90	0	90	0	5	0	0	5	5	95	
2	0	75	0	75	0	10	0	0	10	15	85	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	80	0	80	0	0	0	0	0	20	80	
1	0	90	0	90	0	10	0	0	10	0	100	
1	0	90	0	90	0	0	0	0	0	10	90	
1	0	90	0	90	0	0	0	0	0	10	90	
1	0	90	0	90	0	5	0	0	5	5	95	
1	0	100	0	100	0	0	0	0	0	0	100	
1	0	100	0	100	0	0	0	0	0	0	100	
1	0	100	0	100	0	0	0	0	0	0	100	
2	0	40	0	40	0	0	0	0	0	60	40	
2	0	30	0	30	0	0	0	0	0	70	30	
2	0	90	0	90	0	5	0	0	5	5	95	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	80	0	80	0	0	0	0	0	20	80	
2	0	10	10	20	0	0	0	0	0	80	20	
2	0	10	20	30	0	0	0	0	0	70	30	
2	0	60	10	70	0	0	0	0	0	30	70	
2	0	50	50	100	0	0	0	0	0	0	100	
2	0	50	50	100	0	0	0	0	0	0	100	
2	0	20	10	30	0	60	0	0	60	10	90	
2	0	20	40	60	0	0	0	0	0	40	60	
2	0	15	25	40	0	0	0	0	0	60	40	
2	0	0	30	30	0	0	0	0	0	70	30	
2	0	25	65	90	0	0	0	0	0	10	90	
1	0	100	0	100	0	0	0	0	0	0	100	
1	0	100	0	100	0	0	0	0	0	0	100	
1	0	100	0	100	0	0	0	0	0	0	100	
1	0	100	0	100	0	0	0	0	0	0	100	
1	0	100	0	100	0	0	0	0	0	0	100	
1	0	100	0	100	0	0	0	0	0	0	100	
Average		78.5	4.7	83.2	0.0	1.9	0.0	0.0	1.9	14.9	85.1	

Transect E2								Surveyed 16 June 2025			
Seagrasses					Algae				Total Algae	% Bare Ground	Total Cover
Long=1 Short=2	Fouling 0,1,2	Zostera % cover	Halophila % cover	Total seagrasses	Codium % cover	Cystoseira % cover	Caulerpa % cover	% algae Other			
2	0	65	0	65	0	0	0	0	0	35	65
2	0	65	0	65	0	0	0	0	0	35	65
2	0	60	0	60	0	0	0	0	0	40	60
2	0	45	0	45	0	0	0	0	0	55	45
1	0	60	0	60	0	0	0	0	0	40	60
1	0	75	0	75	0	0	0	0	0	25	75
1	0	80	0	80	0	0	0	0	0	20	80
2	0	70	0	70	0	0	0	0	0	30	70
2	0	80	0	80	0	0	0	0	0	20	80
2	0	85	0	85	0	0	0	0	0	15	85
2	0	75	0	75	0	0	0	0	0	25	75
2	0	50	0	50	0	0	0	0	0	50	50
2	0	85	0	85	0	0	0	0	0	15	85
2	0	98	0	98	0	0	0	0	0	2	98
2	0	98	0	98	0	0	0	0	0	2	98
2	0	90	0	90	0	0	0	0	0	10	90
1	0	85	0	85	0	0	0	0	0	15	85
1	0	90	0	90	0	5	0	0	5	5	95
2	0	80	0	80	0	5	0	0	5	15	85
1	0	90	0	90	0	10	0	0	10	0	100
1	0	85	0	85	0	0	0	0	0	15	85
2	0	85	0	85	0	0	0	0	0	15	85
2	0	90	0	90	0	5	0	0	5	5	95
2	0	95	0	95	0	0	0	0	0	5	95
2	0	85	0	85	0	0	0	0	0	15	85
2	0	90	0	90	0	0	0	0	0	10	90
2	0	90	0	90	0	2	0	0	2	8	92
2	0	85	0	85	0	2	0	0	2	13	87
2	0	70	0	70	0	4	0	0	4	26	74
2	0	60	0	60	0	0	0	0	0	40	60
2	0	70	0	70	0	4	0	0	4	26	74
2	0	40	0	40	0	0	0	0	0	60	40
2	0	70	0	70	0	0	0	0	0	30	70
2	0	55	0	55	0	5	0	0	5	40	60
2	0	90	0	90	0	0	0	0	0	10	90
2	0	85	0	85	0	0	0	0	0	15	85
2	0	45	0	45	0	5	0	0	5	50	50
2	0	55	0	55	0	0	0	0	0	45	55
2	0	85	0	85	0	0	0	0	0	15	85
2	0	85	0	85	0	0	0	0	0	15	85
2	0	90	0	90	0	5	0	0	5	5	95
2	0	95	0	95	0	0	0	0	0	5	95
2	0	80	10	90	0	0	0	0	0	10	90
2	0	90	0	90	0	0	0	0	0	10	90
2	0	95	0	95	0	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	0	5	95
2	0	85	0	85	0	0	0	0	0	15	85
2	0	90	0	90	0	0	0	0	0	10	90
2	0	100	0	100	0	0	0	0	0	0	100
2	0	95	0	95	0	0	0	0	0	5	95
2	0	25	30	55	0	0	0	0	0	45	55
2	0	95	0	95	0	0	0	0	0	5	95
1	0	95	0	95	0	0	0	0	0	5	95
1	0	100	0	100	0	0	0	0	0	0	100
1	0	95	0	95	0	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	0	5	95
1	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	95	0	95	0	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	0	5	95
2	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
2	0	90	5	95	0	0	0	0	0	5	95
2	0	95	5	100	0	0	0	0	0	0	100
2	0	85	10	95	0	0	0	0	0	5	95
2	0	85	15	100	0	0	0	0	0	0	100
2	0	85	15	100	0	0	0	0	0	0	100
Average		82.1	1.3	83.5	0.0	0.8	0.0	0.0	0.8	15.8	84.2

Transect L1					Surveyed 16 June 2025						
Seagrasses					Algae				Total Algae	% Bare Ground	Total Cover
Long=1 Short=2	Fouling 0,1,2	<i>Zostera</i> % cover	<i>Halophila</i> % cover	Total seagrasses	<i>Codium</i> % cover	<i>Cystoseira</i> % cover	<i>Caulerpa</i> % cover	% algae Other			
1	1	95	0	95	0	0	0	0	0	5	95
1	1	95	0	95	0	0	0	0	0	5	95
1	1	90	0	90	0	0	0	0	0	10	90
1	1	85	0	85	0	0	0	0	0	15	85
1	1	85	0	85	0	0	0	0	0	15	85
1	1	90	0	90	0	0	0	0	0	10	90
1	1	90	0	90	0	0	0	0	0	10	90
1	1	90	0	90	0	0	0	0	0	10	90
1	1	85	0	85	0	0	0	0	0	15	85
1	1	100	0	100	0	0	0	0	0	0	100
1	1	80	0	80	0	0	0	0	0	20	80
1	1	65	0	65	0	0	0	0	0	35	65
1	1	70	0	70	0	0	0	0	0	30	70
1	1	65	0	65	0	0	0	0	0	35	65
1	1	70	0	70	0	0	0	0	0	30	70
2	1	50	8	58	0	0	0	0	0	42	58
0	0	0	0	0	0	0	0	0	0	100	0
0	0	0	0	0	0	0	0	0	0	100	0
2	1	15	10	25	0	0	0	0	0	75	25
2	1	35	15	50	0	0	0	0	0	50	50
2	1	10	0	10	0	0	0	0	0	90	10
0	0	0	0	0	0	0	0	0	0	100	0
0	0	0	0	0	0	0	0	0	0	100	0
2	0	10	5	15	0	0	0	0	0	85	15
0	0	0	5	5	0	0	0	0	0	95	5
0	0	0	0	0	0	0	0	0	0	100	0
2	0	40	5	45	0	0	0	0	0	55	45
2	0	35	15	50	0	0	0	0	0	50	50
1	0	65	0	65	0	0	0	0	0	35	65
1	0	70	15	85	0	0	0	0	0	15	85
1	0	50	15	65	0	0	0	0	0	35	65
2	0	55	0	55	0	0	0	0	0	45	55
1	1	30	0	30	0	0	0	0	0	70	30
0	0	0	0	0	0	0	0	0	0	100	0
1	0	50	10	60	0	0	0	0	0	40	60
2	0	50	10	60	0	0	0	0	0	40	60
1	0	85	0	85	0	0	0	0	0	15	85
1	0	65	0	65	0	5	0	0	5	30	70
2	0	60	0	60	0	0	0	0	0	40	60
1	0	85	0	85	0	0	0	0	0	15	85
1	0	60	0	60	0	0	0	0	0	40	60
2	0	60	10	70	0	0	0	0	0	30	70
1	0	95	0	95	0	0	0	0	0	5	95
1	0	100	0	100	0	0	0	0	0	0	100
1	0	95	0	95	0	0	0	0	0	5	95
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
2	0	10	35	45	0	0	0	0	0	55	45
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
2	0	50	10	60	0	0	0	0	0	40	60
2	0	30	0	30	0	0	0	0	0	70	30
2	0	65	0	65	0	0	0	0	0	35	65
2	0	95	0	95	0	0	0	0	0	5	95
2	0	30	0	30	0	0	0	0	0	70	30
0	0	0	0	0	0	0	0	0	0	100	0
1	0	75	10	85	0	0	0	0	0	15	85
1	0	40	25	65	0	0	0	0	0	35	65
1	0	50	0	50	0	0	0	0	0	50	50
Average		62.8	3.0	65.8	0.0	0.1	0.0	0.0	0.1	34.1	65.9

Transect E6					Surveyed 16 June 2025							
Seagrasses					Algae							
Long=1 Short=2	Fouling 0,1,2	Zostera % cover	Halophila % cover	Total seagrasses	Codium % cover	Cystoseira % cover	Caulerpa % cover	% algae Other	Total Algae	% Bare Ground	Total Cover	
1	0	80	0	80	0	0	0	0	0	20	80	
1	0	90	0	90	0	0	0	0	0	10	90	
1	0	40	0	40	0	0	0	0	0	60	40	
1	0	50	0	50	0	0	0	0	0	50	50	
1	0	40	0	40	0	0	0	0	0	60	40	
1	0	20	0	20	0	0	0	0	0	80	20	
0	0	0	0	0	0	0	0	0	0	100	0	
0	0	0	0	0	0	0	0	0	0	100	0	
0	0	0	0	0	0	0	0	0	0	100	0	
2	0	15	5	20	0	0	0	0	0	80	20	
1	0	95	0	95	0	0	0	0	0	5	95	
2	0	50	15	65	0	0	0	0	0	35	65	
1	0	85	5	90	0	0	0	0	0	10	90	
1	0	85	8	93	0	0	0	0	0	7	93	
1	0	45	0	45	0	0	0	0	0	55	45	
2	0	30	0	30	0	0	0	0	0	70	30	
2	0	55	0	55	0	0	0	0	0	45	55	
2	0	55	0	55	0	0	0	0	0	45	55	
2	0	35	5	40	0	0	0	0	0	60	40	
1	0	85	0	85	0	0	0	0	0	15	85	
2	0	70	5	75	0	15	0	0	15	10	90	
1	0	65	0	65	0	0	0	0	0	35	65	
1	0	75	0	75	0	0	0	0	0	25	75	
2	0	30	0	30	0	0	0	0	0	70	30	
0	0	0	0	0	0	0	0	0	0	100	0	
2	0	60	10	70	0	0	0	0	0	30	70	
1	0	55	0	55	0	0	0	0	0	45	55	
2	0	60	0	60	0	0	0	0	0	40	60	
2	0	80	0	80	0	0	0	0	0	20	80	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	20	0	20	0	0	0	0	0	80	20	
0	0	0	0	0	0	0	0	0	0	100	0	
0	0	0	0	0	0	0	0	0	0	100	0	
2	0	20	0	20	0	0	0	0	0	80	20	
2	0	20	0	20	0	0	0	0	0	80	20	
0	0	0	0	0	0	0	0	0	0	100	0	
0	0	0	0	0	0	0	0	0	0	100	0	
2	0	65	5	70	0	0	0	0	0	30	70	
0	0	0	0	0	0	0	0	0	0	100	0	
2	0	25	5	30	0	0	0	0	0	70	30	
2	0	45	0	45	0	0	0	0	0	55	45	
0	0	0	0	0	0	0	0	0	0	100	0	
2	0	60	10	70	0	0	0	0	0	30	70	
2	0	25	10	35	0	0	0	0	0	65	35	
2	0	60	20	80	0	0	0	0	0	20	80	
2	0	5	0	5	0	0	0	0	0	95	5	
2	0	40	5	45	0	0	0	0	0	55	45	
2	0	50	15	65	0	0	0	0	0	35	65	
2	0	30	10	40	0	0	0	0	0	60	40	
2	0	60	5	65	0	0	0	0	0	35	65	
2	0	30	0	30	0	0	0	0	0	70	30	
2	0	15	10	25	0	0	0	0	0	75	25	
2	0	40	10	50	0	0	0	0	0	50	50	
2	0	75	0	75	0	0	0	0	0	25	75	
2	0	75	0	75	0	0	0	0	0	25	75	
2	0	85	5	90	0	0	0	0	0	10	90	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	80	5	85	0	0	0	0	0	15	85	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
0	0	0	15	15	0	0	0	0	0	85	15	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	60	20	80	0	0	0	0	0	20	80	
2	0	50	40	90	0	0	0	0	0	10	90	
2	0	80	5	85	0	0	0	0	0	15	85	
2	0	90	0	90	0	0	0	0	0	10	90	
Average		48.9	3.6	52.5	0.0	0.2	0.0	0.0	0.2	47.2	52.8	

Transect E8		Surveyed 16 June 2025									
		Seagrasses			Algae						
Long=1 Short=2	Fouling 0,1,2	<i>Zostera</i> % cover	<i>Halophila</i> % cover	Total Seagrasses	<i>Codium</i> % cover	<i>Cystoseira</i> % cover	<i>Caulerpa</i> % cover	% algae Other	Total Algae	% Bare Ground	Total Cover
2	0	85	0	85	0	0	0	0	0	15	85
2	0	75	0	75	0	0	0	0	0	25	75
2	0	90	0	90	0	0	0	0	0	10	90
2	0	50	0	50	0	0	0	0	0	50	50
2	0	65	0	65	0	0	0	0	0	35	65
2	0	90	0	90	0	0	0	0	0	10	90
2	0	90	0	90	0	0	0	0	0	10	90
2	0	85	0	85	0	0	0	0	0	15	85
2	0	85	0	85	0	0	0	0	0	15	85
2	0	95	0	95	0	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	0	5	95
2	0	98	0	98	0	0	0	0	0	2	98
2	0	98	0	98	0	0	0	0	0	2	98
2	0	80	0	80	0	0	0	0	0	20	80
2	0	90	0	90	0	0	0	0	0	10	90
2	0	85	0	85	0	0	0	0	0	15	85
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	95	0	95	0	0	0	0	0	5	95
2	0	100	0	100	0	0	0	0	0	0	100
2	0	90	0	90	0	0	0	0	0	10	90
2	0	80	0	80	0	0	0	0	0	20	80
2	0	75	0	75	0	0	0	0	0	25	75
2	0	60	0	60	0	0	0	0	0	40	60
2	0	100	0	100	0	0	0	0	0	0	100
2	0	45	0	45	0	0	0	0	0	55	45
2	0	90	0	90	0	0	0	0	0	10	90
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	95	0	95	0	0	0	0	0	5	95
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	95	0	95	0	0	0	0	0	5	95
2	0	90	0	90	0	0	0	0	0	10	90
2	0	95	0	95	0	0	0	0	0	5	95
2	0	100	0	100	0	0	0	0	0	0	100
2	0	95	0	95	0	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	0	5	95
2	0	100	0	100	0	0	0	0	0	0	100
2	0	75	5	80	0	0	0	0	0	20	80
2	0	95	0	95	0	0	0	0	0	5	95
2	0	100	0	100	0	0	0	0	0	0	100
2	0	80	5	85	0	0	0	0	0	15	85
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	85	5	90	0	0	0	0	0	10	90
2	0	45	20	65	0	0	0	0	0	35	65
2	0	65	15	80	0	0	0	0	0	20	80
2	0	90	5	95	0	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	0	5	95
2	0	75	20	95	0	0	0	0	0	5	95
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
Average		90.4	1.1	91.5	0.0	0.0	0.0	0.0	0.0	8.5	91.5

Transect E9		Surveyed 16 June 2025										
Long=1 Short=2	Fouling 0,1,2	Seagrasses			Algae				% algae Other	Total Algae	% Bare Ground	Total Cover
		<i>Zostera</i> % cover	<i>Halophila</i> % cover	Total Seagrasses	<i>Codium</i> % cover	<i>Cystoseira</i> % cover	<i>Caulerpa</i> % cover					
2	0	70	0	70	0	0	0	0	0	0	30	70
2	0	70	0	70	0	0	0	0	0	0	30	70
2	0	100	0	100	0	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	0	100
2	0	95	0	95	0	0	0	0	0	0	5	95
2	0	100	0	100	0	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	0	100
2	0	80	0	80	0	0	0	0	0	0	20	80
2	0	55	0	55	0	0	0	0	0	0	45	55
2	0	80	0	80	0	0	0	0	0	0	20	80
2	0	85	0	85	0	0	0	0	0	0	15	85
2	0	100	0	100	0	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	0	100
2	0	95	0	95	0	0	0	0	0	0	5	95
2	0	100	0	100	0	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	0	100
2	0	95	0	95	0	0	0	0	0	0	5	95
2	0	100	0	100	0	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	0	100
2	0	98	0	98	0	2	0	0	2	0	0	100
2	0	100	0	100	0	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	0	100
2	0	98	0	98	0	2	0	0	2	0	0	100
2	0	100	0	100	0	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	0	100
2	0	95	0	95	0	5	0	0	5	0	0	100
2	0	90	0	90	0	0	0	0	0	0	10	90
2	0	90	0	90	0	0	0	0	0	0	10	90
2	0	60	0	60	0	0	0	0	0	0	40	60
2	0	100	0	100	0	0	0	0	0	0	0	100
2	0	98	2	100	0	0	0	0	0	0	0	100
2	0	95	0	95	0	0	0	0	0	0	5	95
2	0	90	0	90	0	5	0	0	5	0	5	95
2	0	75	0	75	10	2	0	0	12	13	87	87
2	0	100	0	100	0	0	0	0	0	0	0	100
2	0	95	0	95	0	5	0	0	5	0	0	100
2	0	95	0	95	0	5	0	0	5	0	0	100
2	0	100	0	100	0	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	0	100
2	0	95	0	95	0	5	0	0	5	0	0	100
2	0	100	0	100	0	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	0	100
2	0	95	5	100	0	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	0	100
2	0	95	0	95	0	5	0	0	5	0	0	100
2	0	70	10	80	0	0	0	0	0	0	20	80
2	0	60	5	65	0	0	0	0	0	0	35	65
2	0	95	0	95	0	5	0	0	5	0	0	100
2	0	95	0	95	0	0	0	0	0	0	5	95
2	0	70	15	85	0	0	0	0	0	0	15	85
2	0	100	0	100	0	0	0	0	0	0	0	100
2	0	90	0	90	0	5	0	0	5	5	0	95
2	0	100	0	100	0	0	0	0	0	0	0	100
Average		93.7	0.5	94.2	0.1	0.7	0.0	0.0	0.0	0.8	5.0	95.0

Transect E12									Surveyed 16 June 2025			
Seagrasses					Algae							
Long=1 Short=2	Fouling 0,1,2	<i>Zostera</i> % cover	<i>Halophila</i> % cover	Total Seagrasses	<i>Codium</i> % cover	<i>Cystoseira</i> % cover	<i>Caulerpa</i> % cover	% algae Other	Total Algae	% Bare Ground	Total Cover	
2	0	10	0	10	0	0	0	0	0	90	10	
2	0	35	5	40	0	0	0	0	0	60	40	
2	0	90	5	95	0	0	0	0	0	5	95	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	98	0	98	0	0	0	0	0	2	98	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	90	2	92	0	0	0	0	0	8	92	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	85	5	90	0	0	0	0	0	10	90	
2	0	85	2	87	0	0	0	0	0	13	87	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	80	0	80	0	0	0	0	0	20	80	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	60	0	60	0	0	0	0	0	40	60	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	90	5	95	0	0	0	0	0	5	95	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	70	5	75	0	0	0	0	0	25	75	
2	0	55	10	65	0	0	0	0	0	35	65	
2	0	70	5	75	0	0	0	0	0	25	75	
2	0	80	5	85	0	0	0	0	0	15	85	
2	0	75	0	75	0	0	0	0	0	25	75	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	80	5	85	0	0	0	0	0	15	85	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	80	0	80	0	0	0	0	0	20	80	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	70	5	75	0	0	0	0	0	25	75	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	75	5	80	0	0	0	0	0	20	80	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	70	0	70	0	0	0	0	0	30	70	
0	0	0	0	0	0	0	0	100	100	0	100	
0	0	0	0	0	0	0	0	100	100	0	100	
2	0	15	20	35	0	0	0	15	15	50	50	
2	0	70	5	75	0	0	0	0	0	25	75	
2	0	65	5	70	0	0	0	0	0	30	70	
2	0	50	5	55	0	0	0	0	0	45	55	
2	0	60	5	65	0	0	0	0	0	35	65	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	70	0	70	0	0	0	0	0	30	70	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	80	0	80	0	0	0	0	0	20	80	
Average		81.3	1.5	82.8	0.0	0.0	0.0	3.2	3.2	14.0	86.0	

Transect E13									Surveyed 16 June 2025			
Seagrasses					Algae							
Long=1 Short=2	Fouling 0,1,2	<i>Zostera</i> % cover	<i>Halophila</i> % cover	Total Seagrasses	<i>Codium</i> % cover	<i>Cystoseira</i> % cover	<i>Caulerpa</i> % cover	% algae Other	Total Algae	% Bare Ground	Total Cover	
2	0	50	0	50	0	0	0	0	0	50	50	
2	0	50	0	50	0	0	0	0	0	50	50	
2	0	40	0	40	0	0	0	0	0	60	40	
2	0	50	0	50	0	0	0	0	0	50	50	
2	0	50	0	50	0	0	0	0	0	50	50	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	75	5	80	0	0	0	0	0	20	80	
2	0	90	5	95	0	0	0	0	0	5	95	
2	0	50	0	50	0	0	0	0	0	50	50	
2	0	65	0	65	0	0	0	0	0	35	65	
2	0	75	5	80	0	0	0	0	0	20	80	
2	0	90	5	95	0	0	0	0	0	5	95	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	80	0	80	0	0	0	0	0	20	80	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	60	0	60	0	0	0	0	0	40	60	
2	0	75	5	80	0	0	0	0	0	20	80	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	75	5	80	0	0	0	0	0	20	80	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	75	0	75	0	0	0	0	0	25	75	
2	0	70	0	70	0	0	0	0	0	30	70	
2	0	75	0	75	0	0	0	0	0	25	75	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	50	5	55	0	0	0	0	0	45	55	
2	0	90	0	90	0	5	0	0	5	5	95	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	80	0	80	0	0	0	0	0	20	80	
Average		86.0	0.5	86.5	0.0	0.1	0.0	0.0	0.1	13.5	86.5	

Transect E14									Surveyed 16 June 2025			
		Seagrasses			Algae							
Long=1 Short=2	Fouling 0,1,2	Zostera % cover	Halophila % cover	Total Seagrasses	Codium % cover	Cystoseira % cover	Caulerpa % cover	% algae Other	Total Algae	% Bare Ground	Total Cover	
0	0	0	0	0	0	0	0	0	0	100	0	
2	0	15	0	15	0	0	0	0	0	85	15	
2	0	15	0	15	0	0	0	0	0	85	15	
2	0	10	0	10	0	0	0	0	0	90	10	
0	0	0	0	0	0	0	0	0	0	100	0	
2	0	40	0	40	0	0	0	0	0	60	40	
0	0	0	0	0	0	0	0	0	0	100	0	
0	0	0	0	0	0	0	0	0	0	100	0	
2	0	40	0	40	0	0	0	0	0	60	40	
2	0	35	0	35	0	0	0	0	0	65	35	
0	0	0	0	0	0	0	0	0	0	100	0	
0	0	0	0	0	0	0	0	0	0	100	0	
2	0	15	0	15	0	0	0	0	0	85	15	
0	0	0	0	0	0	0	0	0	0	100	0	
0	0	0	5	5	0	0	0	0	0	95	5	
2	0	5	0	5	0	0	0	0	0	95	5	
2	0	10	0	10	0	0	0	0	0	90	10	
2	0	40	0	40	0	0	0	0	0	60	40	
2	0	40	0	40	0	0	0	0	0	60	40	
2	0	55	0	55	0	0	0	0	0	45	55	
2	0	25	0	25	0	0	0	0	0	75	25	
0	0	0	0	0	0	0	0	0	0	100	0	
0	0	0	0	0	0	0	0	0	0	100	0	
2	0	5	0	5	0	0	0	0	0	95	5	
0	0	0	0	0	0	0	0	0	0	100	0	
2	0	5	5	10	0	0	0	0	0	90	10	
2	0	25	0	25	0	0	0	0	0	75	25	
0	0	0	0	0	0	0	0	0	0	100	0	
2	0	5	0	5	0	0	0	0	0	95	5	
2	0	30	0	30	0	0	0	0	0	70	30	
2	0	5	0	5	0	0	0	0	0	95	5	
0	0	0	0	0	0	0	0	0	0	100	0	
2	0	5	0	5	0	0	0	0	0	95	5	
0	0	0	0	0	0	0	0	0	0	100	0	
0	0	0	0	0	0	0	0	0	0	100	0	
2	0	5	0	5	0	0	0	0	0	95	5	
2	0	50	0	50	0	0	0	0	0	50	50	
0	0	0	0	0	0	0	0	0	0	100	0	
2	0	20	0	20	0	0	0	0	0	80	20	
2	0	35	10	45	0	0	0	0	0	55	45	
2	0	70	5	75	0	0	0	0	0	25	75	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	80	0	80	0	0	0	0	0	20	80	
2	0	45	0	45	0	0	0	0	0	55	45	
2	0	30	2	32	0	0	0	0	0	68	32	
2	0	40	5	45	0	0	0	0	0	55	45	
2	0	45	0	45	0	0	0	0	0	55	45	
2	0	80	0	80	0	0	0	0	0	20	80	
2	0	50	0	50	0	0	0	0	0	50	50	
2	0	15	10	25	0	0	0	0	0	75	25	
2	0	45	10	55	0	0	0	0	0	45	55	
2	0	15	20	35	0	0	0	0	0	65	35	
2	0	45	20	65	0	0	0	0	0	35	65	
2	0	20	20	40	0	0	0	0	0	60	40	
2	0	15	25	40	0	0	0	0	0	60	40	
2	0	10	15	25	0	0	0	0	0	75	25	
2	0	40	15	55	0	0	0	0	0	45	55	
2	0	90	5	95	0	0	0	0	0	5	95	
2	0	85	5	90	0	0	0	0	0	10	90	
2	0	35	20	55	0	0	0	0	0	45	55	
2	0	80	5	85	0	0	0	0	0	15	85	
2	0	15	10	25	0	0	0	0	0	75	25	
2	0	40	15	55	0	0	0	0	0	45	55	
2	0	45	5	50	0	0	0	0	0	50	50	
2	0	15	25	40	0	0	0	0	0	60	40	
2	0	20	5	25	0	0	0	0	0	75	25	
2	0	45	5	50	0	0	0	0	0	50	50	
2	0	50	0	50	0	0	0	0	0	50	50	
Average		26.4	3.9	30.3	0.0	0.0	0.0	0.0	0.0	69.7	30.3	

Transect E15									Surveyed 16 June 2025			
Seagrasses					Algae							
Long=1 Short=2	Fouling 0,1,2	<i>Zostera</i> % cover	<i>Halophila</i> % cover	Total Seagrasses	<i>Codium</i> % cover	<i>Cystoseira</i> % cover	<i>Caulerpa</i> % cover	% algae Other	Total Algae	% Bare Ground	Total Cover	
1	0	50	0	50	0	0	0	0	0	50	50	
0	0	0	0	0	0	0	0	0	0	100	0	
1	0	55	0	55	0	0	0	0	0	45	55	
1	0	65	0	65	0	0	0	0	0	35	65	
1	0	50	0	50	0	0	0	0	0	50	50	
1	1	60	0	60	0	0	0	0	0	40	60	
1	0	55	0	55	0	0	0	0	0	45	55	
1	0	100	0	100	0	0	0	0	0	0	100	
1	0	10	0	10	0	0	0	0	0	90	10	
2	0	70	0	70	0	0	0	0	0	30	70	
1	1	100	0	100	0	0	0	0	0	0	100	
1	0	85	0	85	0	0	0	0	0	15	85	
2	0	50	0	50	0	0	0	0	0	50	50	
2	0	60	0	60	0	0	0	0	0	40	60	
2	0	10	10	20	0	0	0	0	0	80	20	
2	0	10	10	20	0	0	0	0	0	80	20	
2	0	45	10	55	0	0	0	0	0	45	55	
2	0	25	10	35	0	0	0	0	0	65	35	
2	0	55	20	75	0	0	0	0	0	25	75	
2	0	40	5	45	0	0	0	0	0	55	45	
2	0	20	0	20	0	0	0	0	0	80	20	
2	0	55	0	55	0	0	0	0	0	45	55	
2	0	70	5	75	0	0	0	0	0	25	75	
2	0	45	0	45	0	0	0	0	0	55	45	
0	0	0	0	0	0	0	0	0	0	100	0	
2	0	80	0	80	0	0	0	0	0	20	80	
2	0	85	5	90	0	0	0	0	0	10	90	
2	0	75	5	80	0	0	0	0	0	20	80	
2	0	50	10	60	0	0	0	0	0	40	60	
2	0	90	5	95	0	0	0	0	0	5	95	
2	1	100	0	100	0	0	0	0	0	0	100	
2	1	95	0	95	0	0	0	0	0	5	95	
2	1	95	0	95	0	0	0	0	0	5	95	
2	1	95	0	95	0	0	0	0	0	5	95	
1	1	100	0	100	0	0	0	0	0	0	100	
1	0	100	0	100	0	0	0	0	0	0	100	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	80	10	90	0	0	0	0	0	10	90	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	95	0	95	0	5	0	0	5	10	90	
2	0	75	0	75	0	0	0	0	0	25	75	
2	0	75	0	75	0	0	0	0	0	25	75	
2	0	65	0	65	0	0	0	0	0	35	65	
2	0	75	0	75	0	0	0	0	0	25	75	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	95	0	95	0	5	0	0	5	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
Average		75.4	1.5	77.0	0.0	0.1	0.0	0.0	0.1	22.9	77.1	

Transect E16					Surveyed 16 June 2025							
Seagrasses					Algae							
Long=1 Short=2	Fouling 0,1,2	Zostera % cover	Halophila % cover	Total Seagrasses	Codium % cover	Cystoseira % cover	Caulerpa % cover	% algae Other	Total Algae	% Bare Ground	Total Cover	
1	0	85	5	90	0	0	0	0	0	10	90	
1	0	90	0	90	0	0	0	0	0	10	90	
1	0	85	0	85	0	0	0	0	0	15	85	
1	0	85	0	85	0	0	0	0	0	15	85	
1	0	70	0	70	0	0	0	0	0	30	70	
1	0	75	0	75	0	0	0	0	0	25	75	
1	0	90	0	90	0	0	0	0	0	10	90	
1	0	50	0	50	0	0	0	0	0	50	50	
2	0	80	0	80	0	0	0	0	0	20	80	
1	0	100	0	100	0	0	0	0	0	0	100	
2	0	50	0	50	0	0	0	0	0	50	50	
2	0	30	0	30	0	0	0	0	0	70	30	
2	0	60	0	60	0	0	0	0	0	40	60	
2	0	75	0	75	0	0	0	0	0	25	75	
1	0	100	0	100	0	0	0	0	0	0	100	
1	1	70	0	70	0	0	0	0	0	30	70	
2	0	70	0	70	0	0	0	0	0	30	70	
1	0	100	0	100	0	0	0	0	0	0	100	
1	0	100	0	100	0	0	0	0	0	0	100	
1	0	75	0	75	0	0	0	0	0	25	75	
2	0	75	0	75	0	0	0	0	0	25	75	
2	0	75	0	75	0	0	0	0	0	25	75	
2	0	25	0	25	0	0	0	0	0	75	25	
2	0	25	0	25	0	0	0	0	0	75	25	
2	0	25	0	25	0	0	0	0	0	75	25	
2	0	30	0	30	0	0	0	0	0	70	30	
2	0	70	0	70	0	0	0	0	0	30	70	
2	0	80	0	80	0	0	0	0	0	20	80	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	70	0	70	0	5	0	0	5	25	75	
1	0	100	0	100	0	0	0	0	0	0	100	
1	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
1	1	100	0	100	0	0	0	0	0	0	100	
1	1	100	0	100	0	0	0	0	0	0	100	
1	1	100	0	100	0	0	0	0	0	0	100	
1	1	100	0	100	0	0	0	0	0	0	100	
2	0	30	0	30	0	0	0	0	0	70	30	
2	1	100	0	100	0	0	0	0	0	0	100	
2	1	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	95	0	95	0	0	0	0	0	5	95	
1	0	100	0	100	0	0	0	0	0	0	100	
1	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
1	1	100	0	100	0	0	0	0	0	0	100	
2	1	80	0	80	0	0	0	0	0	20	80	
2	0	80	0	80	0	0	0	0	0	20	80	
2	0	70	0	70	0	0	0	0	0	30	70	
1	0	70	0	70	0	0	0	0	0	30	70	
1	0	100	0	100	0	0	0	0	0	0	100	
1	1	70	0	70	0	5	0	0	5	25	75	
1	0	100	0	100	0	0	0	0	0	0	100	
1	0	100	0	100	0	0	0	0	0	0	100	
1	0	100	0	100	0	0	0	0	0	0	100	
1	0	100	0	100	0	0	0	0	0	0	100	
1	0	100	0	100	0	0	0	0	0	0	100	
1	0	100	0	100	0	0	0	0	0	0	100	
1	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
1	0	100	0	100	0	0	0	0	0	0	100	
1	0	100	0	100	0	0	0	0	0	0	100	
Average		83.6	0.1	83.7	0.0	0.1	0.0	0.0	0.1	16.2	83.8	

Bardens Bay

Transect A1					Surveyed 12 June 2025						
Long=1 Short=2	Fouling 0,1,2	Seagrasses		Total Seagrasses	Algae				Total Algae	% Bare Ground	Total Cover
		Zostera % cover	Halophila % cover		Codium % cover	Cystoseira % cover	Caulerpa % cover	% algae Other			
1	0	85	0	85	0	0	0	0	0	15	85
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	70	0	70	0	0	0	0	0	30	70
1	0	50	0	50	0	0	0	0	0	50	50
1	0	25	0	25	0	0	0	0	0	75	25
1	0	10	0	10	0	0	0	0	0	90	10
1	0	80	0	80	0	10	0	0	10	10	90
1	0	100	0	100	0	0	0	0	0	0	100
1	0	90	0	90	0	10	0	0	10	0	100
1	0	95	0	95	0	0	0	0	0	5	95
1	0	90	0	90	0	5	0	0	5	5	95
1	0	90	0	90	0	0	0	0	0	10	90
1	0	100	0	100	0	0	0	0	0	0	100
1	0	85	0	85	0	0	0	0	0	15	85
1	0	90	0	90	0	10	0	0	10	0	100
1	0	50	0	50	0	5	0	0	5	45	55
0	0	0	0	0	0	10	0	0	10	90	10
2	0	30	0	30	0	20	0	0	20	50	50
1	0	60	0	60	0	20	0	0	20	20	80
1	0	80	0	80	0	0	0	0	0	20	80
1	0	100	0	100	0	0	0	0	0	0	100
1	0	90	0	90	0	10	0	0	10	0	100
1	0	85	0	85	0	15	0	0	15	0	100
1	0	45	0	45	0	20	0	0	20	35	65
1	0	85	0	85	0	10	0	0	10	5	95
2	0	25	0	25	0	10	0	0	10	65	35
0	0	0	0	0	0	30	0	0	30	70	30
2	0	25	0	25	0	30	0	0	30	45	55
0	0	0	0	0	0	10	0	30	40	60	40
0	0	0	0	0	0	15	0	0	15	85	15
0	0	0	0	0	0	0	0	15	15	85	15
2	0	50	0	50	0	0	0	5	5	45	55
2	0	75	0	75	0	10	0	0	10	15	85
2	0	75	0	75	0	10	0	0	10	15	85
2	0	75	0	75	0	10	0	0	10	15	85
2	0	65	0	65	0	5	0	0	5	30	70
2	0	70	0	70	0	10	0	0	10	20	80
2	0	75	0	75	0	0	0	0	0	25	75
2	0	85	0	85	0	5	0	0	5	10	90
2	0	75	0	75	0	0	0	0	0	25	75
2	0	90	0	90	0	0	0	0	0	10	90
2	0	85	0	85	0	0	0	0	0	15	85
2	0	95	0	95	0	0	0	0	0	5	95
2	0	45	0	45	0	0	0	15	15	40	60
2	0	75	0	75	0	10	0	5	15	10	90
2	0	85	0	85	0	5	0	5	10	5	95
2	0	75	0	75	0	0	0	10	10	15	85
2	0	65	0	65	0	10	0	0	10	25	75
2	0	90	0	90	0	5	0	5	10	0	100
2	0	55	0	55	0	10	0	0	10	35	65
2	0	75	0	75	0	0	0	0	0	25	75
2	0	65	0	65	0	5	0	0	5	30	70
2	0	65	0	65	0	0	0	10	10	25	75
2	0	55	10	65	0	0	0	0	0	35	65
2	0	45	0	45	0	0	0	15	15	40	60
2	0	60	0	60	0	0	0	0	0	40	60
2	0	100	0	100	0	0	0	0	0	0	100
2	0	90	0	90	0	0	0	10	10	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	85	0	85	0	0	0	0	0	15	85
2	0	85	0	85	0	10	0	0	10	5	95
2	0	85	0	85	0	0	0	0	0	15	85
2	0	75	0	75	0	0	0	0	0	25	75
2	0	100	0	100	0	0	0	0	0	0	100
2	0	85	0	85	0	10	0	0	10	5	95
2	0	95	0	95	0	0	0	0	0	5	95
Average		69.2	0.1	69.3	0.0	5.2	0.0	1.8	7.1	23.6	76.4

Transect A2									Surveyed 12 June 2025			
Seagrasses					Algae							
Long=1 Short=2	Fouling 0,1,2	Zostera % cover	Halophila % cover	Total Seagrasses	Codium % cover	Cystoseira % cover	Caulerpa % cover	% algae Other	Total Algae	% Bare Ground	Total Cover	
1	0	85	0	85	0	0	0	0	0	15	85	
1	0	85	0	85	0	0	0	0	0	15	85	
1	0	90	0	90	0	0	0	0	0	10	90	
1	0	90	0	90	0	0	0	0	0	10	90	
1	0	85	0	85	0	0	0	0	0	15	85	
1	0	100	0	100	0	0	0	0	0	0	100	
1	0	85	0	85	0	0	0	0	0	15	85	
1	0	85	0	85	0	0	0	0	0	15	85	
1	0	100	0	100	0	0	0	0	0	0	100	
1	0	90	0	90	0	0	0	10	10	0	100	
1	0	100	0	100	0	0	0	0	0	0	100	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	65	0	65	0	0	0	15	15	20	80	
2	0	60	0	60	0	0	0	10	10	30	70	
2	0	60	0	60	0	0	0	35	35	5	95	
2	0	65	0	65	0	0	0	15	15	20	80	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	65	0	65	0	0	0	35	35	0	100	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	75	0	75	0	0	0	0	0	25	75	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	85	0	85	0	5	0	0	5	10	90	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	75	0	75	0	0	0	0	0	25	75	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	85	0	85	0	5	0	0	5	10	90	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	95	0	95	0	5	0	0	5	0	100	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	65	0	65	0	0	0	0	0	35	65	
2	0	45	0	45	0	0	0	0	0	55	45	
2	0	35	0	35	0	10	0	0	10	55	45	
2	0	45	0	45	0	15	0	0	15	40	60	
2	0	75	0	75	0	0	0	0	0	25	75	
0	0	0	0	0	0	15	0	0	15	85	15	
2	0	40	0	40	0	5	0	0	5	55	45	
2	0	80	0	80	0	0	0	0	0	20	80	
2	0	65	0	65	0	0	0	0	0	35	65	
2	0	90	0	90	0	0	0	10	10	0	100	
2	0	75	0	75	0	0	0	15	15	10	90	
2	0	80	0	80	0	5	0	0	5	15	85	
2	0	90	0	90	0	5	0	0	5	5	95	
Average		83.3	0.0	83.3	0.0	1.0	0.0	2.1	3.2	13.5	86.5	

Transect A3				Surveyed 12 June 2025							
Long=1 Short=2	Fouling 0,1,2	Seagrasses			Algae				Total Algae	% Bare Ground	Total Cover
		<i>Zostera</i> % cover	<i>Halophila</i> % cover	Total seagrasses	<i>Codium</i> % cover	<i>Cystoseira</i> % cover	<i>Caulerpa</i> % cover	% algae Other			
1	0	95	0	95	0	0	0	0	0	5	95
1	0	95	0	95	0	0	0	0	0	5	95
1	0	85	0	85	0	0	0	0	0	15	85
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	35	0	35	0	0	0	0	0	65	35
1	0	30	0	30	0	0	0	0	0	70	30
1	0	85	0	85	0	0	0	0	0	15	85
1	0	90	0	90	0	5	0	0	5	5	95
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	80	0	80	0	0	0	10	10	10	90
1	0	100	0	100	0	0	0	0	0	0	100
1	0	95	0	95	0	0	0	0	0	5	95
1	0	100	0	100	0	0	0	0	0	0	100
1	0	95	0	95	0	0	0	0	0	5	95
1	0	90	0	90	0	0	0	0	0	10	90
1	0	95	0	95	0	0	0	0	0	5	95
1	0	95	0	95	0	0	0	0	0	5	95
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	95	0	95	0	0	0	0	0	5	95
1	0	95	0	95	0	0	0	0	0	5	95
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	90	0	90	0	10	0	0	10	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	95	0	95	0	0	0	5	5	0	100
1	0	90	0	90	0	0	0	0	0	10	90
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	95	0	95	0	0	0	0	0	5	95
1	0	100	0	100	0	0	0	0	0	0	100
1	0	85	0	85	0	0	0	0	0	15	85
1	0	95	0	95	0	0	0	0	0	5	95
1	0	90	0	90	0	0	0	0	0	10	90
1	0	85	0	85	0	0	0	0	0	15	85
2	0	90	0	90	0	0	0	0	0	10	90
2	0	85	0	85	0	0	0	0	0	15	85
1	0	70	0	70	0	0	0	0	0	30	70
1	0	85	0	85	0	0	0	0	0	15	85
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	95	0	95	0	0	0	0	0	5	95
1	0	90	0	90	0	0	0	0	0	10	90
1	0	95	0	95	0	0	0	0	0	5	95
2	0	80	0	80	0	0	0	0	0	20	80
2	0	85	0	85	0	0	0	0	0	15	85
2	0	65	0	65	0	10	0	0	10	25	75
1	0	80	0	80	0	0	0	0	0	20	80
1	0	100	0	100	0	0	0	0	0	0	100
Average		91.5	0.0	91.5	0.0	0.4	0.0	0.3	0.7	7.8	92.2

Transect A5									Surveyed 12 June 2025		
Seagrasses					Algae						
Long=1 Short=2	Fouling 0,1,2	Zostera % cover	Halophila % cover	Total Seagrasses	Codium % cover	Cystoseira % cover	Caulerpa % cover	% algae Other	Total Algae	% Bare Ground	Total Cover
0	0	0	0	0	0	0	0	0	0	100	0
0	0	0	0	0	0	0	0	0	0	100	0
0	0	0	0	0	0	0	0	0	0	100	0
0	0	0	0	0	0	0	0	0	0	100	0
0	0	0	0	0	0	0	0	0	0	100	0
0	0	0	0	0	0	0	0	0	0	100	0
0	0	0	0	0	0	10	0	10	20	80	20
2	0	75	10	85	0	0	0	0	0	15	85
2	0	65	10	75	0	0	0	0	0	25	75
2	0	85	5	90	0	0	0	0	0	10	90
2	0	55	5	60	0	0	0	0	0	40	60
2	0	85	5	90	0	0	0	0	0	10	90
2	0	100	0	100	0	0	0	0	0	0	100
2	0	95	0	95	0	0	0	0	0	5	95
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	95	0	95	0	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	0	5	95
2	0	25	5	30	0	0	0	0	0	70	30
2	0	80	10	90	0	10	0	0	10	0	100
2	0	90	10	100	0	0	0	0	0	0	100
2	0	30	40	70	0	15	0	0	15	15	85
2	0	40	55	95	0	0	0	0	0	5	95
2	0	35	55	90	0	0	0	0	0	10	90
2	0	90	10	100	0	0	0	0	0	0	100
2	0	85	15	100	0	0	0	0	0	0	100
2	0	90	10	100	0	0	0	0	0	0	100
2	0	95	5	100	0	0	0	0	0	0	100
2	0	90	10	100	0	0	0	0	0	0	100
2	0	85	15	100	0	0	0	0	0	0	100
2	0	95	5	100	0	0	0	0	0	0	100
2	0	95	5	100	0	0	0	0	0	0	100
2	0	90	10	100	0	0	0	0	0	0	100
2	0	85	15	100	0	0	0	0	0	0	100
2	0	95	5	100	0	0	0	0	0	0	100
2	0	95	5	100	0	0	0	0	0	0	100
2	0	55	45	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	90	10	100	0	0	0	0	0	0	100
2	0	60	25	85	0	0	0	0	0	15	85
2	0	75	25	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	90	0	90	0	0	0	0	0	10	90
2	0	95	0	95	0	0	0	0	0	5	95
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	95	0	95	0	0	0	0	0	5	95
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	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	0	100	0
2	0	10	5	15	0	0	0	0	0	85	15
Average		73.8	6.8	80.6	0.0	0.5	0.0	0.2	0.7	18.7	81.3

Transect A6		Surveyed 12 June 2025									
Seagrasses					Algae						
Long=1 Short=2	Fouling 0,1,2	Zostera % cover	Halophila % cover	Total Seagrasses	Codium % cover	Cystoseira % cover	Caulerpa % cover	% algae Other	Total Algae	% Bare Ground	Total Cover
2	0	75	0	75	0	0	0	0	0	25	75
2	0	65	0	65	0	0	0	0	0	35	65
2	0	50	0	50	0	0	0	5	5	45	55
2	0	60	0	60	0	0	0	0	0	40	60
2	0	80	0	80	0	0	0	0	0	20	80
2	0	85	0	85	0	0	0	0	0	15	85
2	0	80	0	80	0	0	0	0	0	20	80
2	0	80	0	80	0	0	0	0	0	20	80
2	0	75	0	75	0	0	0	0	0	25	75
0	0	0	0	0	0	0	0	0	0	100	0
2	0	10	5	15	0	0	0	0	0	85	15
2	0	45	30	75	0	0	0	0	0	25	75
2	0	0	50	50	0	0	0	0	0	50	50
0	0	0	50	50	0	10	0	0	10	40	60
2	0	45	15	60	0	0	0	0	0	40	60
2	0	15	80	95	0	0	0	0	0	5	95
2	0	10	45	55	0	0	0	0	0	45	55
2	0	55	5	60	0	10	0	0	10	30	70
2	0	90	0	90	0	0	0	0	0	10	90
2	0	95	0	95	0	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	0	5	95
2	0	65	0	65	0	0	0	0	0	35	65
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	65	15	80	0	0	0	0	0	20	80
2	0	30	25	55	0	0	0	0	0	45	55
2	0	65	15	80	0	0	0	0	0	20	80
2	0	80	15	95	0	0	0	0	0	5	95
2	0	80	2	82	0	0	0	0	0	18	82
2	0	85	2	87	0	0	0	0	0	13	87
2	0	100	0	100	0	0	0	0	0	0	100
2	0	50	5	55	0	0	0	0	0	45	55
2	0	92	3	95	0	0	0	0	0	5	95
2	0	80	15	95	0	0	0	0	0	5	95
2	0	90	0	90	0	0	0	0	0	10	90
2	0	95	0	95	0	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	0	5	95
2	0	100	0	100	0	0	0	0	0	0	100
2	0	85	0	85	0	0	0	0	0	15	85
2	0	90	0	90	0	0	0	0	0	10	90
2	0	100	0	100	0	0	0	0	0	0	100
2	0	85	0	85	0	5	0	0	5	10	90
2	0	85	0	85	0	5	0	0	5	10	90
2	0	85	5	90	0	0	0	0	0	10	90
2	0	45	25	70	0	0	0	0	0	30	70
2	0	85	5	90	0	0	0	0	0	10	90
2	0	75	10	85	0	0	0	0	0	15	85
2	0	65	20	85	0	0	0	0	0	15	85
2	0	95	0	95	0	0	0	0	0	5	95
2	0	50	15	65	0	0	0	0	0	35	65
2	0	50	5	55	0	0	0	0	0	45	55
2	0	70	10	80	0	0	0	0	0	20	80
2	0	80	0	80	0	0	0	0	0	20	80
2	0	95	0	95	0	0	0	0	0	5	95
2	0	75	5	80	0	5	0	0	5	15	85
0	0	0	0	0	0	45	0	0	45	55	45
2	0	15	45	60	0	0	0	0	0	40	60
2	0	35	25	60	0	15	0	0	15	25	75
2	0	30	15	45	0	0	0	0	0	55	45
2	0	70	0	70	0	0	0	0	0	30	70
2	0	90	0	90	0	0	0	0	0	10	90
2	0	75	0	75	0	5	0	0	5	20	80
2	0	85	0	85	0	0	0	0	0	15	85
Average		67.1	8.8	75.8	0.0	1.6	0.0	0.1	1.6	22.5	77.5

Sugar Bay

Transect S1									Surveyed 12 June 2025		
Seagrasses					Algae						
Long=1 Short=2	Fouling 0,1,2	Zostera % cover	Halophila % cover	Total seagrasses	Codium % cover	Cystoseira % cover	Caulerpa % cover	% algae Other	Total Algae	% Bare Ground	Total Cover
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	95	0	95	0	0	0	0	0	5	95
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	95	0	95	0	0	0	0	0	5	95
1	0	90	0	90	0	0	0	0	0	10	90
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	85	0	85	0	0	0	0	0	15	85
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0	100	0	0	0	0	0	0	100
1	0	100	0								

Transect S4									Surveyed 12 June 2025		
Seagrasses					Algae						
Long=1 Short=2	Fouling 0,1,2	Zostera % cover	Halophila % cover	Total seagrasses	Codium % cover	Cystoseira % cover	Caulerpa % cover	% algae Other	Total Algae	% Bare Ground	Total Cover
2	0	100	0	100	0	0	0	0	0	0	100
2	0	90	0	90	0	0	0	0	0	10	90
2	0	85	0	85	0	0	0	0	0	15	85
2	0	75	0	75	0	0	0	0	0	25	75
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	90	0	90	0	0	0	0	0	10	90
2	0	90	0	90	0	0	0	0	0	10	90
2	0	85	0	85	0	0	0	0	0	15	85
2	0	100	0	100	0	0	0	0	0	0	100
2	0	70	0	70	0	0	0	0	0	30	70
2	0	85	0	85	0	0	0	0	0	15	85
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0								

Transect S5									Surveyed 12 June 2025		
Seagrasses					Algae						
Long=1 Short=2	Fouling 0,1,2	Zostera % cover	Halophila % cover	Total seagrasses	Codium % cover	Cystoseira % cover	Caulerpa % cover	% algae Other	Total Algae	% Bare Ground	Total Cover
2	0	65	0	65	0	10	0	0	10	25	75
2	0	90	0	90	0	0	0	0	0	10	90
2	0	85	0	85	0	0	0	0	0	15	85
2	0	90	0	90	0	0	0	0	0	10	90
2	0	85	0	85	0	0	0	0	0	15	85
2	0	95	0	95	0	0	0	0	0	5	95
2	0	85	0	85	0	0	0	0	0	15	85
2	0	85	0	85	0	0	0	0	0	15	85
2	0	85	0	85	0	0	0	0	0	15	85
2	0	90	0	90	0	0	0	0	0	10	90
2	0	80	0	80	0	0	0	0	0	20	80
2	0	85	0	85	0	0	0	0	0	15	85
0	0	75	0	75	0	0	0	0	0	25	75
0	0	85	10	95	0	0	0	0	0	5	95
0	0	70	0	70	0	0	0	0	0	30	70
2	0	70	0	70	0	0	0	0	0	30	70
2	0	70	2	72	0	0	0	0	0	28	72
2	0	70	0	70	0	0	0	0	0	30	70
2	0	70	0	70	0	0	0	0	0	30	70
2	0	80	0	80	0	0	0	0	0	20	80
0	0	85	0	85	0	0	0	0	0	15	85
0	0	75	0	75	0	0	0	0	0	25	75
2	0	75	0	75	0	0	0	0	0	25	75
2	0	70	0	70	0	0	0	0	0	30	70
2	0	75	0	75	0	0	0	0	0	25	75
2	0	0	0	0	0	0	0	0	0	100	0
2	0	0	0	0	0	0	0	0	0	100	0
2	0	0	0	0	0	0	0	0	0	100	0
2	0	0	0	0	0	0	0	0	0	100	0
2	0	0	0	0	0	0	0	0	0	100	0
2	0	50	10	60	0	0	0	0	0	40	60
2	0	75	0	75	0	0	0	0	0	25	75
2	0	85	0	85	0	0	0	0	0	15	85
2	0	85	0	85	0	0	0	0	0	15	85
2	0	60	10	70	0	0	0	0	0	30	70
2	0	60	15	75	0	0	0	0	0	25	75
2	0	45	10	55	0	0	0	0	0	45	55
2	0	60	10	70	0	0	0	0	0	30	70
2	0	85	5	90	0	0	0	0	0	10	90
2	0	85	5	90	0	0	0	0	0	10	90
2	0	100	0	100	0	0	0	0	0	0	100
2	0	95	0	95	0	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	0	5	95
2	0	95	2	97	0	0	0	0	0	3	97
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100									

Transect S6									Surveyed 17 June 2025			
Seagrasses					Algae							
Long=1 Short=2	Fouling 0,1,2	Zostera % cover	Halophila % cover	Total seagrasses	Codium % cover	Cystoseira % cover	Caulerpa % cover	% algae Other	Total Algae	% Bare Ground	Total Cover	
2	0	50	0	50	0	0	0	0	0	50	50	
2	0	50	0	50	0	0	0	0	0	50	50	
2	0	70	0	70	0	0	0	0	0	30	70	
2	0	75	0	75	0	0	0	0	0	25	75	
2	0	50	0	50	0	0	0	0	0	50	50	
2	0	45	0	45	0	0	0	0	0	55	45	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	55	0	55	0	0	0	0	0	45	55	
2	0	60	0	60	0	0	0	0	0	40	60	
2	0	60	0	60	0	0	0	0	0	40	60	
2	0	70	0	70	0	0	0	10	10	20	80	
2	0	55	0	55	0	0	0	0	0	45	55	
2	0	60	0	60	0	0	0	0	0	40	60	
2	0	70	0	70	0	0	0	0	0	30	70	
2	0	60	0	60	0	0	0	0	0	40	60	
2	0	80	0	80	0	0	0	0	0	20	80	
2	0	70	0	70	0	0	0	0	0	30	70	
2	0	60	0	60	0	0	0	0	0	40	60	
2	0	75	10	85	0	0	0	0	0	15	85	
2	0	85	5	90	0	0	0	0	0	10	90	
2	0	45	10	55	0	10	0	0	10	35	65	
2	0	65	10	75	0	0	0	0	0	25	75	
2	0	40	15	55	0	0	0	0	0	45	55	
2	0	35	0	35	0	0	0	0	0	65	35	
2	0	15	0	15	0	0	0	0	0	85	15	
2	0	40	0	40	0	5	0	0	5	55	45	
2	0	10	0	10	0	0	0	0	0	90	10	
2	0	20	0	20	0	0	0	0	0	80	20	
2	0	10	0	10	0	0	0	0	0	90	10	
2	0	50	0	35	0	0	0	0	0	65	35	
2	0	65	0	65	0	0	0	0	0	35	65	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	75	0	75	0	0	0	0	0	25	75	
2	0	15	0	15	0	0	0	0	0	85	15	
2	0	15	0	15	0	5	0	0	5	80	20	
2	0	30	0	30	0	0	0	10	10	60	40	
2	0	60	5	65	0	0	0	0	0	35	65	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	80	0	80	0	0	0	0	0	20	80	
2	0	85	0	85	0	5	0	0	5	10	90	
2	0	55	0	55	0	10	0	0	10	35	65	
2	0	90	0	90	0	5	0	0	5	5	95	
2	0	80	0	80	0	0	0	0	0	20	80	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	80	10	90	0	0	0	0	0	10	90	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	90	5	95	0	0	0	0	0	5	95	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	80	10	90	0	0	0	0	0	10	90	
2	0	60	15	75	0	0	0	0	0	25	75	
2	0	85	5	90	0	5	0	0	5	5	95	
2	0	95	5	100	0	0	0	0	0	0	100	
2	0	95	5	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	35	60	95	0	0	0	0	0	5	95	
2	0	85	15	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
Average		68.9	2.7	71.4	0.0	0.7	0.0	0.3	1.0	27.6	72.4	

Transect S7									Surveyed 12 June 2025			
Seagrasses					Algae							
Long=1 Short=2	Fouling 0,1,2	<i>Zostera</i> % cover	<i>Halophila</i> % cover	Total seagrasses	<i>Codium</i> % cover	<i>Cystoseira</i> % cover	<i>Caulerpa</i> % cover	% algae Other	Total Algae	% Bare Ground	Total Cover	
1	0	80	0	80	0	0	0	0	0	20	80	
1	0	80	0	80	0	0	0	0	0	20	80	
1	0	100	0	100	0	0	0	0	0	0	100	
1	0	90	0	90	0	0	0	0	0	10	90	
1	0	80	0	80	0	0	0	0	0	20	80	
0	0	0	0	0	0	0	0	0	0	100	0	
1	0	20	0	20	0	0	0	0	0	80	20	
1	0	50	0	50	0	0	0	0	0	50	50	
1	0	60	0	60	0	0	0	0	0	40	60	
1	0	100	0	100	0	0	0	0	0	0	100	
1	0	100	0	100	0	0	0	0	0	0	100	
1	0	100	0	100	0	0	0	0	0	0	100	
1	0	85	0	85	0	0	0	0	0	15	85	
1	0	85	0	85	0	0	0	0	0	15	85	
1	0	100	0	100	0	0	0	0	0	0	100	
1	0	65	0	65	0	0	0	0	0	35	65	
1	0	100	0	100	0	0	0	0	0	0	100	
2	0	30	0	30	0	0	0	0	0	70	30	
2	0	65	0	65	0	0	0	0	0	35	65	
2	0	65	10	75	0	0	0	0	0	25	75	
2	0	30	20	50	0	0	0	0	0	50	50	
2	0	55	15	70	0	0	0	0	0	30	70	
2	0	60	10	70	0	0	0	0	0	30	70	
2	0	45	10	55	0	0	0	0	0	45	55	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	85	0	85	0	0	0	0	0	15	85	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	50	0	50	0	0	0	0	0	50	50	
2	0	45	0	45	0	0	0	0	0	55	45	
1	0	85	0	85	0	0	0	0	0	15	85	
1	0	70	0	70	0	0	0	0	0	30	70	
1	0	50	0	50	0	0	0	0	0	50	50	
1	0	80	0	80	0	0	0	0	0	20	80	
1	0	20	0	20	0	0	0	0	0	80	20	
1	0	45	0	45	0	0	0	0	0	55	45	
1	0	50	0	50	0	0	0	0	0	50	50	
1	0	100	0	100	0	0	0	0	0	0	100	
1	0	100	0	100	0	0	0	0	0	0	100	
1	0	100	0	100	0	0	0	0	0	0	100	
1	0	85	0	85	0	0	0	0	0	15	85	
1	0	75	0	75	0	0	0	0	0	25	75	
1	0	75	0	75	0	0	0	0	0	25	75	
1	0	75	0	75	0	0	0	0	0	25	75	
1	0	100	0	100	0	0	0	0	0	0	100	
1	0	100	0	100	0	0	0	0	0	0	100	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	60	10	70	0	0	0	0	0	30	70	
2	0	65	20	85	0	0	0	0	0	15	85	
2	0	60	20	80	0	0	0	0	0	20	80	
2	0	60	20	80	0	0	0	0	0	20	80	
2	0	60	5	65	0	0	0	0	0	35	65	
2	0	95	0	95	0	0	0	0	0	5	95	
1	0	100	0	100	0	0	0	0	0	0	100	
1	0	100	0	100	0	0	0	0	0	0	100	
1	0	100	0	100	0	0	0	0	0	0	100	
1	0	100	0	100	0	0	0	0	0	0	100	
1	0	100	0	100	0	0	0	0	0	0	100	
1	0	100	0	100	0	0	0	0	0	0	100	
1	0	85	5	90	0	0	0	0	0	10	90	
Average		77.7	2.1	79.9	0.0	0.0	0.0	0.0	0.0	20.1	79.9	

Transect S9									Surveyed 17 June 2025			
Seagrasses					Algae							
Long=1 Short=2	Fouling 0,1,2	<i>Zostera</i> % cover	<i>Halophila</i> % cover	Total seagrasses	<i>Codium</i> % cover	<i>Cystoseira</i> % cover	<i>Caulerpa</i> % cover	% algae Other	Total Algae	% Bare Ground	Total Cover	
2	0	40	10	50	0	0	0	0	0	50	50	
2	0	45	10	55	0	0	0	0	0	45	55	
2	0	55	10	65	0	0	0	0	0	35	65	
2	0	55	10	65	0	0	0	0	0	35	65	
2	0	65	5	70	0	0	0	0	0	30	70	
2	0	75	10	85	0	0	0	0	0	15	85	
2	0	80	10	90	0	0	0	0	0	10	90	
2	0	75	0	75	0	0	0	0	0	25	75	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	85	10	95	0	0	0	0	0	5	95	
2	0	85	10	95	0	0	0	0	0	5	95	
2	0	85	10	95	0	0	0	0	0	5	95	
2	0	80	10	90	0	0	0	0	0	10	90	
2	0	80	15	95	0	0	0	0	0	5	95	
2	0	70	20	90	0	0	0	0	0	10	90	
2	0	65	20	85	0	0	0	0	0	15	85	
2	0	85	10	95	0	0	0	0	0	5	95	
2	0	80	10	90	0	0	0	0	0	10	90	
2	0	75	10	85	0	0	0	0	0	15	85	
2	0	80	5	85	0	0	0	0	0	15	85	
2	0	70	15	85	0	0	0	0	0	15	85	
2	0	75	15	90	0	0	0	0	0	10	90	
2	0	85	5	90	0	0	0	0	0	10	90	
2	0	75	10	85	0	0	0	0	0	15	85	
2	0	65	5	70	0	0	0	0	0	30	70	
2	0	85	5	90	0	0	0	0	0	10	90	
2	0	80	5	85	0	0	0	0	0	15	85	
2	0	75	0	75	0	0	0	0	0	25	75	
2	0	65	5	35	0	0	0	0	0	65	35	
2	0	80	5	85	0	0	0	0	0	15	85	
2	0	70	5	75	0	0	0	0	0	25	75	
2	0	70	5	75	0	0	0	0	0	25	75	
2	0	80	5	85	0	0	0	0	0	15	85	
2	0	65	5	70	0	0	0	0	0	30	70	
2	0	55	5	60	0	0	0	0	0	40	60	
2	0	50	5	55	0	0	0	0	0	45	55	
2	0	30	15	45	0	0	0	0	0	55	45	
2	0	20	20	40	0	0	0	0	0	60	40	
2	0	50	20	70	0	0	0	0	0	30	70	
2	0	25	35	60	0	0	0	0	0	40	60	
2	0	20	20	40	0	0	0	0	0	60	40	
2	0	60	15	75	0	0	0	0	0	25	75	
2	0	60	15	75	0	0	0	0	0	25	75	
2	0	60	10	70	0	0	0	0	0	30	70	
2	0	20	15	35	0	0	0	0	0	65	35	
2	0	30	15	45	0	0	0	0	0	55	45	
2	0	20	25	45	0	0	0	0	0	55	45	
2	0	45	15	60	0	0	0	0	0	40	60	
2	0	75	0	75	0	0	0	0	0	25	75	
2	0	90	0	90	0	0	0	0	0	10	90	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	95	0	95	0	0	0	0	0	5	95	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0	0	0	100	
2	0	100	0	100	0	0	0	0				

Crangan Bay

[illegible]

Transect C4									Surveyed 12th June 2025		
Long=1 Short=2	Fouling 0,1,2	Seagrasses			Algae				Total Algae	% Bare Ground	Total Cover
		Zostera % cover	Halophila % cover	Total Seagrasses	Codium % cover	Cystoseira % cover	Caulerpa % cover	% algae Other			
2	0	70	0	70	0	0	0	0	0	30	70
2	0	80	0	80	0	0	0	0	0	20	80
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	95	0	95	0	0	0	0	0	5	95
2	0	85	5	90	0	0	0	0	0	10	90
2	0	95	0	95	0	0	0	0	0	5	95
2	0	80	0	80	0	0	0	0	0	20	80
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	90	0	90	0	0	0	0	0	10	90
2	0	95	5	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	90	0	90	0	0	0	0	0	10	90
2	0	95	5	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	90	5	95	0	0	0	0	0	5	95
2	0	90	0	90	0	0	0	0	0	10	90
2	0	85	0	85	0	0	0	0	0	15	85
2	0	65	0	65	0	0	0	0	0	35	65
2	0	85	0	85	0	0	0	0	0	15	85
2	0	85	0	85	0	0	0	0	0	15	85
2	0	90	0	90	0	0	0	0	0	10	90
2	0	90	0	90	0	0	0	0	0	10	90
2	0	90	0	90	0	0	0	0	0	10	90
2	0	95	0	95	0	0	0	0	0	5	95
2	0	90	5	95	0	0	0	0	0	5	95
2	0	85	0	85	0	0	0	0	0	15	85
2	0	85	0	85	0	0	0	0	0	15	85
2	0	80	5	85	0	0	0	0	0	15	85
2	0	95	0	95	0	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	0	5	95
2	0	80	10	90	0	0	0	0	0	10	90
2	0	85	5	90	0	0	0	0	0	10	90
2	0	90	5	95	0	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	0	5	95
2	0	100	0	100	0	0	0	0	0	0	100
2	0	100	0	100	0	0	0	0	0	0	100
2	0	95	0	95	0	0	0	0	0	5	95
2	0	85	0	85	0	0	0	0	0	15	85
2	0	50	15	65	0	0	0	0	0	35	65
2	0	50	5	55	0	0	0	0	0	45	55
2	0	65	0	65	0	0	0	0	0	35	65
2	0	75	0	75	0	5	0	0	5	20	80
2	0	75	5	80	0	0	0	0	0	20	80
2	0	75	10	85	0	0	0	0	0	15	85
2	0	75	10	85	0	0	0	0	0	15	85
2	0	95	0	95	0	0	0	0	0	5	95
2	0	85	0	85	0	10	0	0	10	5	95
2	0	95	0	95	0	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	0	5	95
2	0	85	5	90	0	0	0	0	0	10	90
2	0	85	0	85	0	0	0	0	0	15	85
2	0	90	0	90	0	0	0	0	0	10	90
2	0	98	0	98	0	10	0	0	10	-8	108
2	0	95	0	95	0	10	0	0	10	-5	105
2	0	95	0	95	0	0	0	0	0	5	95
2	0	75	0	75	0	0	0	0	0	25	75
2	0	95	0	95	0	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	0	5	95
2	0	95	0	95	0	0	0	0	0	5	95
2	0	85	0	85	0	0	0	0	0	15	85
2	0	85	0	85	0	0	0	0	0	15	85
2	0	90	0	90	0	0	0	0	0	10	90
2	0	95	0	95	0	0	0	0	0	5	95
2	0	100	0	100	0	0	0	0	0	0	100
Average		88.2	1.4	89.6	0.0	0.5	0.0	0.0	0.5	9.9	90.1

Table C.2 Changes in percentage cover of seagrasses – June 2025

Changes in percentage cover of the substratum by seagrasses off the northern shore of Summerland Point and Frying Pan Bay (2018-2025)

Transect C5	2018	2019	2020	2021	2022	2023	2024	2025
% seagrass	100.0	100.0	99.71	99.71	99.71	93.12	96.6	91.71
% bare ground	0.00	0.00	0.29	0.00	0.29	3.47	2.9	8.3
Transect C6	2018	2019	2020	2021	2022	2023	2024	2025
% seagrass	99.56	97.76	95.88	98.60	98.09	95.13	94.3	78.8
% bare ground	0.44	2.24	4.11	1.25	1.91	4.13	5.5	19.0
Transect F1	2018	2019	2020	2021	2022	2023	2024	2025
% seagrass	97.81	100.0	99.34	99.41	99.19	95.65	90.4	91.6
% bare ground	2.19	0.00	0.66	0.59	0.81	3.71	6.2	8.3
Transect F2	2018	2019	2020	2021	2022	2023	2024	2025
% seagrass	99.63	94.93	98.82	96.03	90.29	50.23	79.77	78.4
% bare ground	0.37	5.07	1.18	2.13	9.71	21.38	18.4	19.5
Transect F3	2018	2019	2020	2021	2022	2023	2024	2025
% seagrass	99.93	87.82	97.06	97.65	97.53	86.47	93.6	93.4
% bare ground	0.07	12.18	2.94	2.35	2.47	11.66	6.4	5.9
Transect F4	2018	2019	2020	2021	2022	2023	2024	2025
% seagrass	98.16	48.90	96.40	97.94	96.40	96.84	91.5	80.7
% bare ground	1.84	51.1	3.60	2.06	3.60	2.79	8.5	19.3
Transect F5	2018	2019	2020	2021	2022	2023	2024	2025
% seagrass	99.04	80.80	90.96	96.40	90.66	85.68	90.1	71.9
% bare ground	0.96	19.2	9.04	3.53	9.34	10.54	9.9	28.1
Transect F6	2018	2019	2020	2021	2022	2023	2024	2025
% seagrass	100.0	81.99	96.25	95.96	96.10	85.96	92.8	87.5
% bare ground	10.00	18.01	3.75	3.97	3.90	12.57	7.2	12.5
Transect F7	2018	2019	2020	2021	2022	2023	2024	2025
% seagrass	98.24	97.65	87.57	95.22	86.62	79.41	89.0	79.3
% bare ground	1.76	2.35	12.43	4.78	13.38	20.29	11.0	20.7

Changes in percentage cover of the substratum by seagrasses off the western shore of Summerland Point (2008-2025)

Transect E7	2008	2010	2011	2012	2013	2015	2016	2017	2018	2019
% seagrass	97.93	51.40	45.47	68.31	43.38	92.65	100.0	98.16	98.16	97.65
% bare ground	2.07	48.60	54.53	31.69	56.62	7.35	0.00	1.84	1.84	2.35
Transect T1	2008	2010	2011	2012	2013	2015	2016	2017	2018	2019
% seagrass	88.94	41.90	32.60	77.91	94.41	94.65	97.35	99.47	85.29	59.92
% bare ground	11.06	58.10	67.40	22.09	5.59	5.35	2.65	0.53	14.71	40.08
Transect T2	2008	2010	2011	2012	2013	2015	2016	2017	2018	2019
% seagrass	77.91	70.29	7.95	75.74	60.83	74.41	90.59	93.31	90.00	76.87

% bare ground	22.09	29.71	92.05	24.26	39.17	25.59	9.41	6.69	10.00	23.13
Transect T3	2008	2010	2011	2012	2013	2015	2016	2017	2018	2019
% seagrass	46.20	63.16	58.53	83.53	89.93	93.82	96.10	98.19	97.57	63.01
% bare ground	53.80	36.84	41.47	16.47	10.07	6.18	3.90	1.81	2.43	36.99
Transect T4	2008	2010	2011	2012	2013	2015	2016	2017	2018	2019
% seagrass	83.51	81.89	70.37	90.37	97.28	97.94	99.85	95.76	95.07	70.44
% bare ground	16.49	18.01	29.63	9.63	2.72	2.06	0.15	4.24	4.93	29.56
Transect T5	2008	2010	2011	2012	2013	2015	2016	2017	2018	2019
% seagrass	81.78	77.00	51.40	92.35	99.12	99.41	98.82	99.56	89.63	62.65
% bare ground	18.22	23.00	48.60	7.65	0.88	0.59	1.18	0.44	10.37	37.35
Transect T6	2008	2010	2011	2012	2013	2015	2016	2017	2018	2019
% seagrass	53.82	59.63	44.77	65.59	95.22	95.74	98.82	94.41	97.13	46.18
% bare ground	46.18	40.37	53.23	34.41	4.78	4.26	1.18	5.59	2.87	53.82
Transect T7	2008	2010	2011	2012	2013	2015	2016	2017	2018	2019
% seagrass	97.93	70.79	89.34	89.09	99.78	98.38	100.0	99.85	98.97	25.88
% bare ground	2.07	29.51	10.66	10.91	0.22	1.62	0.00	0.15	1.03	74.12
Transect T8	2008	2010	2011	2012	2013	2015	2016	2017	2018	2019
% seagrass	95.94	60.29	76.99	87.64	96.76	99.26	99.26	98.24	100.0	46.32
% bare ground	4.06	39.71	23.01	13.26	3.24	0.74	0.74	1.76	0.00	53.68

Transect E7	2020	2021	2022	2023	2024	2025
% seagrass	93.75	93.75	93.90	87.28	84.1	80.9
% bare ground	6.25	6.18	6.10	12.65	15.8	19.1
Transect T1	2020	2021	2022	2023	2024	2025
% seagrass	97.87	90.96	95.81	92.25	87.5	82.3
% bare ground	2.13	7.06	4.19	5.00	11.5	16.6
Transect T2	2020	2021	2022	2023	2024	2025
% seagrass	97.50	98.31	97.35	74.41	90.0	78.0
% bare ground	2.5	1.32	2.65	20.66	9.1	21.7
Transect T3	2020	2021	2022	2023	2024	2025
% seagrass	94.85	98.68	94.56	88.75	84.6	85.4
% bare ground	5.14	1.32	5.44	9.12	15.4	14.6
Transect T4	2020	2021	2022	2023	2024	2025
% seagrass	82.06	99.93	89.85	90.26	88.8	87.6
% bare ground	17.94	0.07	10.15	8.63	10.9	12.2
Transect T5	2020	2021	2022	2023	2024	2025
% seagrass	79.71	98.97	86.40	84.26	92.6	79.1
% bare ground	20.29	1.03	13.6	15.15	7.0	20.7
Transect T6	2020	2021	2022	2023	2024	2025
% seagrass	79.12	98.16	81.47	86.03	92.3	81.3
% bare ground	20.88	1.84	18.53	13.90	7.8	18.7
Transect T7	2020	2021	2022	2023	2024	2025
% seagrass	82.50	100.0	82.28	84.25	87.9	90.8

% bare ground	17.50	0.00	17.72	15.46	12.1	9.2
Transect T8	2020	2021	2022	2023	2024	2025
% seagrass	87.21	98.82	87.50	83.24	88.7	88.6
% bare ground	12.79	1.18	12.50	16.99	11.3	11.4

Changes in percentage cover of the substratum by seagrasses in Chain Valley Bay (2008-2025)

Transect E1	2008	2010	2011	2012	2013	2015	2016	2017	2018
% seagrass	84.15	81.01	77.75	98.62	99.44	92.44	99.88	97.96	97.87
% bare ground	15.85	18.99	22.25	1.38	0.56	7.56	0.12	2.04	2.13
Transect E2	2008	2010	2011	2012	2013	2015	2016	2017	2018
% seagrass	83.72	75.87	73.38	95.49	99.09	98.49	99.71	100.0	97.94
% bare ground	16.28	24.13	26.62	4.49	0.91	1.51	0.29	0.00	2.06
Transect E3	2008	2010	2011	2012	2013	2015	2016	2017	2018
% seagrass	98.29	98.97	92.76	96.97	99.16	100.0	83.53	98.90	94.56
% bare ground	1.71	1.03	7.24	1.54	0.84	0.00	16.47	1.10	5.44
Transect E4	2008	2010	2011	2012	2013	2015	2016	2017	2018
% seagrass	80.16	98.54	95.74	100.0	97.50	96.43	98.01	96.76	99.71
% bare ground	19.84	1.46	4.26	0.00	2.50	3.57	1.99	3.24	0.29
Transect L1	2008	2010	2011	2012	2013	2015	2016	2017	2018
% seagrass						99.12	99.71	97.87	97.87
% bare ground						0.88	0.29	2.13	2.13
Transect E5	2008	2010	2011	2012	2013	2015	2016	2017	2018
% seagrass	95.88	94.93	95.19	100.0	98.82	99.82	100.0	97.22	99.41
% bare ground	4.12	5.07	4.81	0.00	1.18	0.18	0.00	2.78	0.59
Transect E6	2008	2010	2011	2012	2013	2015	2016	2017	2018
% seagrass	17.74	34.06	49.56	55.51	54.93	76.62	100.0	99.56	89.91
% bare ground	82.16	65.94	50.44	44.49	45.07	23.38	0.00	0.44	10.09
Transect E8	2008	2010	2011	2012	2013	2015	2016	2017	2018
% seagrass	99.32	84.26	95.56	90.96	99.93	99.85	100.0	99.34	100.0
% bare ground	0.68	15.74	4.44	9.04	0.07	0.15	0.00	0.66	0.00
Transect E9	2008	2010	2011	2012	2013	2015	2016	2017	2018
% seagrass	95.94	99.39	95.51	99.49	99.71	99.56	100.0	99.78	100.0
% bare ground	4.06	0.61	4.49	0.51	0.29	0.44	0.00	0.22	0.00
Transect E10	2008	2010	2011	2012	2013	2015	2016	2017	2018
% seagrass	97.94	92.21	86.25	98.99	98.82	NS	100.0	100.0	100.0
% bare ground	2.06	7.79	13.75	1.01	1.18		0.00	0.00	0.00
Transect E11	2008	2010	2011	2012	2013	2015	2016	2017	2018
% seagrass			86.93	99.85	99.49	NS	100.0	100.0	100.0
% bare ground			13.07	0.15	0.51		0.00	0.00	0.00
Transect E12	2008	2010	2011	2012	2013	2015	2016	2017	2018
% seagrass			95.68	95.53	98.09	NS	100.0	100.0	100.0
% bare ground			7.32	4.47	1.91		0.00	0.00	0.00
Transect E13	2008	2010	2011	2012	2013	2015	2016	2017	2018

% seagrass			93.97	99.26	100.0	NS	100.0	100.0	100.0
% bare ground			6.03	0.74	0.00		0.00	0.00	0.00
Transect E14	2008	2010	2011	2012	2013	2015	2016	2017	2018
% seagrass			86.54	99.34	100.0	NS	100.0	90.44	100.0
% bare ground			13.46	0.56	0.00		0.00	9.56	0.00
Transect E15	2008	2010	2011	2012	2013	2015	2016	2017	2018
% seagrass			90.29	99.93	99.66	NS	100.0	93.31	99.85
% bare ground			9.71	0.07	0.34		0.00	6.69	0.15
Transect E16	2008	2010	2011	2012	2013	2015	2016	2017	2018
% seagrass			82.79	93.22	94.12	NS	100.0	99.94	99.71
% bare ground			17.21	6.78	5.88		0.00	0.06	0.29

Transect E1	2019	2020	2021	2022	2023	2024	2025
% seagrass	99.12	99.04	99.34	98.81	85.35	82.6	83.2
% bare ground	0.88	0.96	0.66	1.19	9.03	4.8	14.9
Transect E2	2019	2020	2021	2022	2023	2024	2025
% seagrass	97.94	98.53	99.26	98.74	87.24	76.4	83.5
% bare ground	2.06	1.47	0.37	1.26	5.07	7.1	15.8
Transect E3	2019	2020	2021	2022	2023	2024	2025
% seagrass	98.97	100.0	99.93	100.0	96.69	91.8	94.0
% bare ground	1.03	0.00	0.66	0.00	3.31	7.7	6.0
Transect E4	2019	2020	2021	2022	2023	2024	2025
% seagrass	99.85	98.82	98.68	98.68	91.51	87.5	85.8
% bare ground	0.15	1.18	0.88	1.32	5.81	4.9	9.6
Transect L1	2019	2020	2021	2022	2023	2024	2025
% seagrass	94.63	95.74	99.85	97.65	93.65	79.15	65.8
% bare ground	5.37	4.26	0.15	2.35	5.62	20.2	34.1
Transect E5	2019	2020	2021	2022	2023	2024	2025
% seagrass	98.97	100.0	100.0	99.54	96.37	88.09	68.0
% bare ground	1.03	0.00	0.00	0.46	3.12	11.8	31.9
Transect E6	2019	2020	2021	2022	2023	2024	2025
% seagrass	76.69	97.35	99.78	94.71	75.04	72.94	52.5
% bare ground	23.31	2.65	0.00	5.29	22.09	26.9	47.2
Transect E8	2019	2020	2021	2022	2023	2024	2025
% seagrass	99.34	97.87	99.78	98.09	87.51	86.28	91.5
% bare ground	0.66	2.13	0.00	1.91	12.41	13.5	8.5
Transect E9	2019	2020	2021	2022	2023	2024	2025
% seagrass	100.0	99.71	100.0	99.71	96.22	90.07	94.2
% bare ground	0.00	0.29	0.00	0.29	3.46	6.8	5.0
Transect E10	2019	2020	2021	2022	2023	2024	2025
% seagrass	98.21	97.94	100.0	99.72	89.03	95.96	89.8
% bare ground	1.79	2.06	0.00	0.28	2.75	4.0	10.2
Transect E11	2019	2020	2021	2022	2023	2024	2025
% seagrass	98.94	99.63	100.0	100	96.56	96.7	90.8

% bare ground	1.06	0.37	0.00	0.00	3.22	3.2	9.2
Transect E12	2019	2020	2021	2022	2023	2024	2025
% seagrass	97.0	99.26	100.0	100	94.82	88.93	82.8
% bare ground	3.0	0.74	0.00	0.00	4.81	11.0	14.0
Transect E13	2019	2020	2021	2022	2023	2024	2025
% seagrass	99.95	100	99.71	100	99.34	89.85	86.5
% bare ground	0.05	0.00	0.29	0.00	0.44	9.0	13.5
Transect E14	2019	2020	2021	2022	2023	2024	2025
% seagrass	98.24	99.41	99.78	99.63	92.50	76.0	30.0
% bare ground	1.76	0.59	0.22	0.37	6.62	14.9	69.7
Transect E15	2019	2020	2021	2022	2023	2024	2025
% seagrass	50.66	99.34	100.0	99.78	89.63	86.4	77.0
% bare ground	49.34	0.66	0.00	0.22	10.15	13.2	22.9
Transect E16	2019	2020	2021	2022	2023	2024	2025
% seagrass	95.0	98.31	98.75	98.75	95.22	87.6	83.7
% bare ground	5.0	1.69	1.25	1.25	4.63	12.4	16.2

Changes in percentage cover of the substratum by seagrasses in Bardens Bay (2014-2025)

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

Transect A1	2022	2023	2024	2025
% seagrass	89.41	74.26	81.5	69.3
% bare ground	10.59	16.32	11.2	23.6
Transect A2	2022	2023	2024	2025

% seagrass	96.18	82.47	95.1	83.3
% bare ground	3.82	8.90	2.6	13.5
Transect A3	2022	2023	2024	2025
% seagrass	99.19	86.78	94.4	91.5
% bare ground	0.81	6.09	4.9	7.8
Transect A4	2022	2023	2024	2025
% seagrass	98.31	96.40	85.0	88.3
% bare ground	1.69	3.53	13.9	11.7
Transect A5	2022	2023	2024	2025
% seagrass	97.96	83.46	69.5	80.6
% bare ground	2.04	16.62	30.1	18.7
Transect A6	2022	2023	2024	2025
% seagrass	96.84	97.57	82.2	75.8
% bare ground	3.16	1.35	17.0	22.5

Changes in percent cover of the substratum by seagrasses in Sugar Bay and Sunshine (2018-2025)

Transect S1	2018	2019	2020	2021	2022	2023	2024	2025
% seagrass	62.50	24.71	99.63	97.79	99.63	90.69	90.22	96.3
% bare ground	37.50	75.29	0.37	0.74	0.37	2.06	3.9	2.4
Transect S2	2018	2019	2020	2021	2022	2023	2024	2025
% seagrass	96.62	85.83	97.50	96.54	93.90	94.34	68.82	94.4
% bare ground	3.38	14.17	2.50	3.46	6.10	5.37	22.1	5.6
Transect S3	2018	2019	2020	2021	2022	2023	2024	2025
% seagrass	99.19	97.13	98.75	100.0	98.53	95.32	96.84	95.2
% bare ground	0.81	2.87	1.25	0.00	1.47	4.01	3.1	4.8
Transect S4	2018	2019	2020	2021	2022	2023	2024	2025
% seagrass	99.97	98.82	99.56	100.0	99.41	96.32	99.85	91.1
% bare ground	0.03	1.18	0.44	0.00	0.59	3.46	0.1	8.9
Transect S5	2018	2019	2020	2021	2022	2023	2024	2025
% seagrass	99.12	67.08	75.88	94.56	79.34	92.94	83.38	79.6
% bare ground	0.88	32.92	24.11	5.37	20.66	5.96	16.4	20.2
Transect S6	2018	2019	2020	2021	2022	2023	2024	2025
% seagrass	100.0	99.78	100.0	98.57	99.41	93.38	68.09	71.4
% bare ground	0.00	0.22	0.00	1.32	0.59	6.32	22.3	27.6

Changes in percent cover of the substratum by seagrasses in Crangan Bay (2008-2025)

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

Transect C1	2020	2021	2022	2023	2024	2025
% seagrass	88.68	93.90	89.04	82.07	96.76	77.2
% bare ground	11.32	3.90	10.96	10.35	1.1	14.0
Transect C2	2020	2021	2022	2023	2024	2025
% seagrass	96.76	97.72	98.60	92.21	93.68	91.5
% bare ground	3.24	1.25	1.40	6.54	5.4	7.7
Transect C3	2020	2021	2022	2023	2024	2025
% seagrass	96.84	100.0	97.81	95.15	99.04	89.9
% bare ground	3.16	0.00	2.19	2.87	0.8	10.0
Transect C4	2020	2021	2022	2023	2024	2025
% seagrass	94.93	99.85	97.15	95.22	97.28	89.6
% bare ground	5.07	0.15	2.85	1.62	2.2	9.9