SCAGI - Seymour Community Action Group Inc.

PO Box 25 Bicheno 7215

Submission - Application for a Water Licence

2 Oct 2020

Applicant: Andrew John Nugent, property address 19595 Tasman Highway Seymour TAS 7215

To the
Section Head (Water and Dam Administration)
Water Management & Assessment Branch
GPO Box 44 Hobart TAS 7001

Dear Bill Shackcloth

I am writing as a member of the Seymour Community Action Group Inc. Our group has a large environmental focus, we are actively engaged in wetland restoration and weed management at Seymour.

Some of our members are direct neighbours along Doctors Creek on the eastern side. Others are concerned about potential detrimental effects the water licence would have on the local environment.

The main concern is the effect the water licence will have downstream in Doctors Creek then Templestowe Lagoon. The lagoon is 54.3 ha in size when full and very shallow. The tidal inundation events occur typically a few times a year; then a sand bar will stop the saltwater movements for the rest of the time.

Doctors Creek approx. location of proposed extraction point
28 Sep 2020 - looking east.

Our concern is that the volume of the water licence will inhibit the natural cycle of the bar opening and the resulting tidal movements. Our calculation shows that a yearly loss of about 0.39 metre in water level would be the outcome, calculated at the lagoon's full extent. The lagoon is very shallow and only navigable in parts by kayak.

96% of the water licence will be pumped from Doctors Creek which has the greatest catchment area for the Templestowe lagoon and is its major tributary. All other tributaries are only 40% of the catchment.

The attached diagram of the Templestowe Lagoon showcases its values and importance to the community as well as to all Flora and Fauna. A number of government agencies and UTAS have chosen Templestowe Lagoon to demonstrate its value to all.

The lagoon is classified as "HIGH" - Integrated Conservation Value under CFEV. So is Doctors Creek and its Wetland. (see attached CFEV diagram). The "Coastal Vegetation Significance" is shown as Endangered at the mouth of Doctors Creek and other parts around Templestowe Lagoon.

The resulting lack of water into Templestowe Lagoon, into Doctors Creek and the Saltwater Wetland will have a detrimental effect on: Human use, Education and research, Nearby habitats, Upland vegetation, Birdlife, Insects and spiders, Crabs and snails, Tidal creeks, Fish nursery and Carbon capture.

The Water Allocation Assessment Report shows annual rainfall of 792.97mm, which seems much too high for this catchment. Rainfall measurements differ greatly over short distances. The attached BoM Tasmania 30-year average winter (Apr. to Nov.) rainfall diagram shows 400 - 600 mm. The nearest weather station at Douglas River shows an average annual rainfall for the period of 1 May to 30 Nov of 359.3mm for Median rainfall and 452.6mm for Mean rainfall. (see attached figure)

This water licence depends entirely on suitable water storage infrastructure and should not be open for assessment without the necessary plans at hand. The potential environmental impact will also include any proposed activity such as a vineyard. (ie the extent of the vineyard and associated impacts such as use of fertiliser, pesticides, herbicides in a system where relatively small changes in inputs could lead to eutrophication etc).

It is for the above reasons that we object to this vast quantity of water being licenced to one individual without due consideration to the local environment and possible future town needs. From our point of view this lack of water will cause serious environmental harm to the Seymour foreshore and estuary. We also note that the applicant is not the landowner.

Thank you for your consideration of our concerns and objection to this application for a Water Licence.

Kind regards

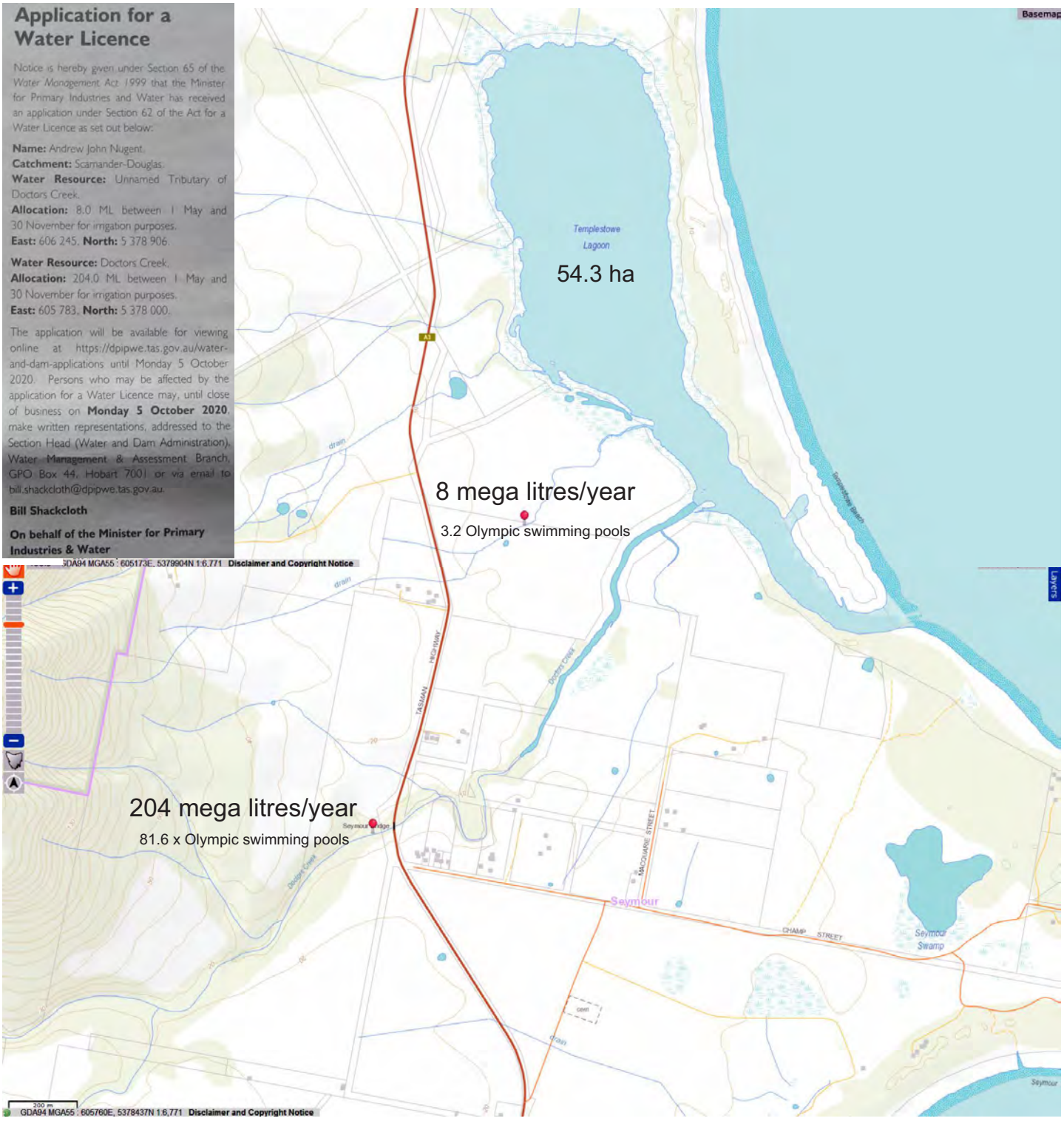
Daniel Steiner
Treasurer
Seymour Community Action Group Inc. - https://scagi7215.wixsite.com/scagi

Attachments:
Location Map & supporting graphics
UTAS graphic of Templestowe Lagoon

The Seymour foreshore and estuary can’t look after itself without our commitment to support it.

18 September 2020

Location plan of pumping points



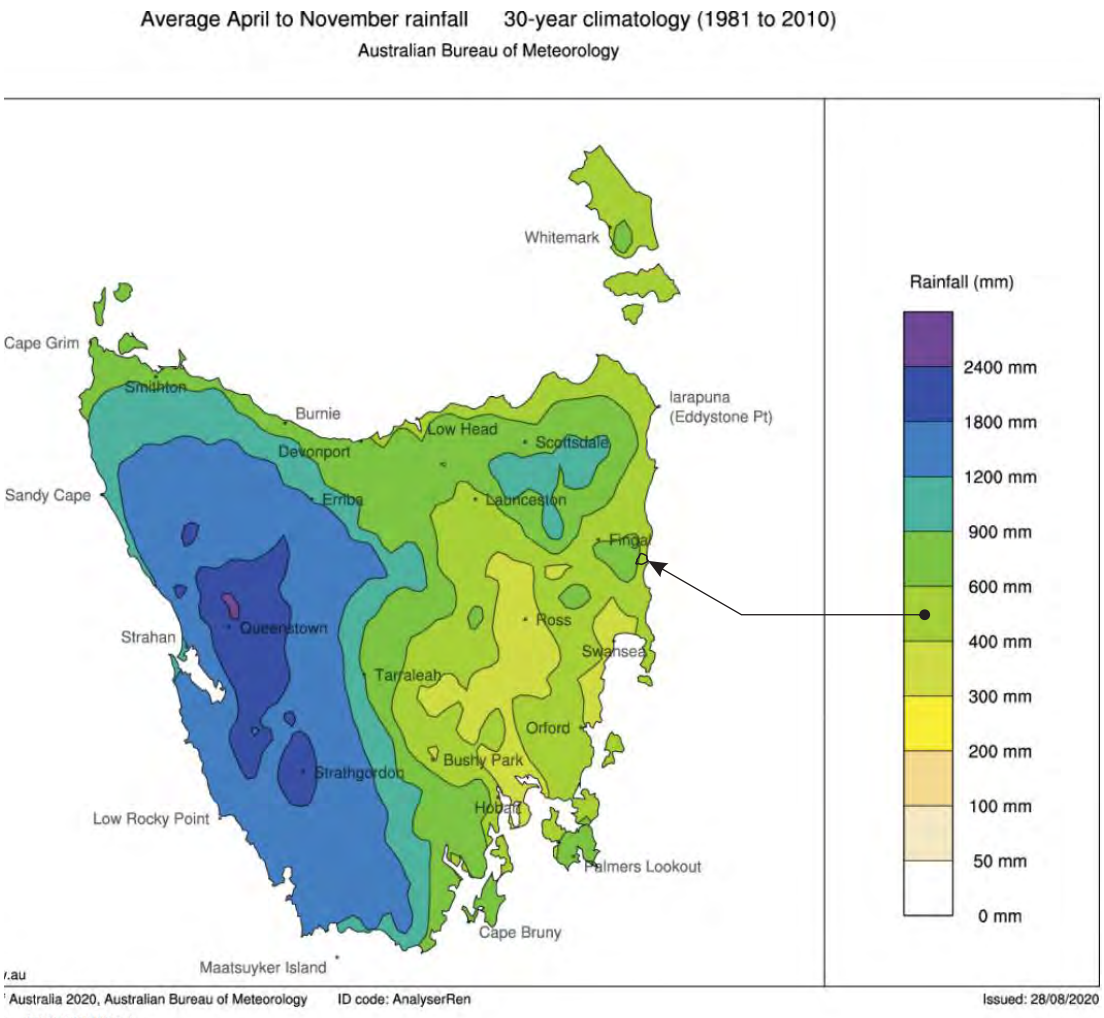
No plans for water storage infrastructure have been submitted.

212 Mega Litres = 212 Million Litres

1 mm over 1 ha = 10'000 Litres

212 Mega Litres over 54.3 ha = 0.39 metre

The water licence of 212 ML will reduce the water level of the Templestowe Lagoon by 0.39 metres per year.
The average depth of the lagoon is less than 1 metre.

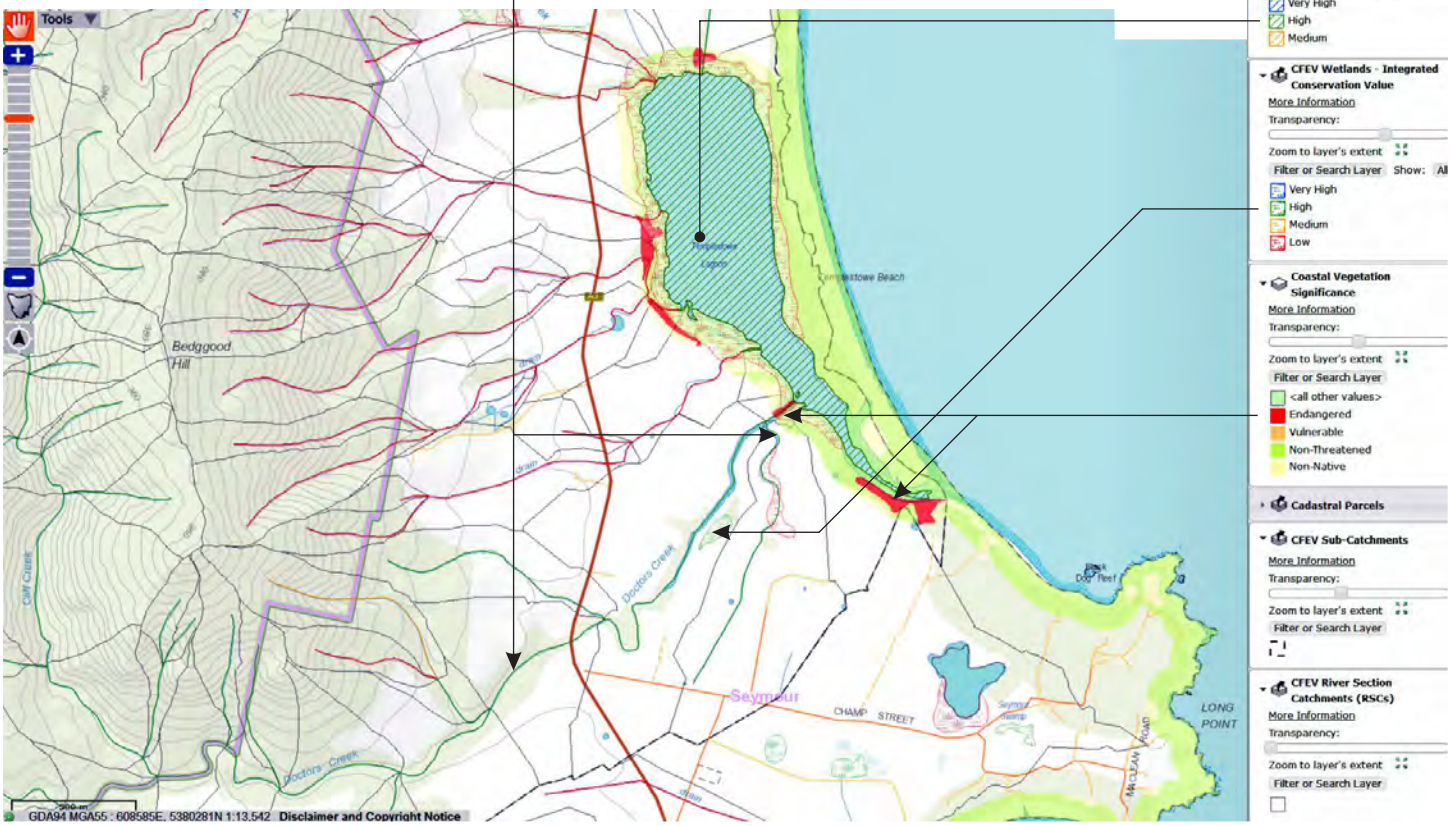


30 Year average annual Winter rainfall

400-600mm

Conservation of Freshwater Ecosystem Values (CFEV)

Source: TheLIST



Australian Government
Bureau of Meteorology

Monthly rainfall

The Monthly rainfall is the total of all available Daily rainfall for the month. Observations of Daily rainfall are nominally made at 9 am local clock time and record the total for the previous 24 hours. Rainfall includes all forms of precipitation that reach the ground, such as rain, drizzle, hail and snow. About monthly rainfall

Station: Douglas River Number: 92054 Opened: 1950 Now: Open
Lat: 41.78° S Lon: 148.25° E Elevation: 19 m

Key: Units are millimetres. *12.3* = Not quality controlled.
Period for calculating statistics: All years 1961-1990

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
1950					110.6	32.5	43.0	89.7	41.2	116.5			
1951		132.2		52.2	36.2		56.3	48.4	29.3	61.8	77.5	26.1	
1952	10.7			118.8	163.7	54.9	97.9	20.7	48.2	157.9	108.7	44.2	
1953		14.2											
1992	45.6	112.0	22.4	53.0	85.8	76.4	49.0	69.8	39.8	77.0	129.6	39.2	799.6
1993	50.4	99.2	52.2	40.4	5.6	12.0	179.8	31.2	56.6	5.6	119.4	465.4	1117.8
1994	26.8	104.0	36.0	8.8	8.8	22.4	7.6	90.2	23.4	100.5	67.6	7.2	503.3
1995	371.8	28.4	20.8	60.8	21.2	27.0	45.4	51.4	17.6	49.2	127.2	205.0	1025.8
1996	146.8	77.2	11.4	101.0	13.4	52.6	89.0	29.2	139.8	40.0	62.8	51.4	814.6
1997	32.4	39.4	59.0	21.2	20.8	23.6	4.4	47.6	174.6	33.2	40.0	23.6	519.8
1998	98.8	59.4	7.6	53.8	22.6	126.0	104.4	47.8	46.4	42.0	172.4	71.0	852.2
1999	41.4	79.8	82.4	93.0	52.2	30.0		25.8	23.0	82.0	67.6	96.0	
2000	263.0	29.8	54.7	29.0	28.0	20.6	74.0	74.6	42.2	110.0	97.6	13.2	836.7
2001		17.2	131.4		41.8	20.6			46.0	152.8		72.0	
2002	90.4	102.2	7.8	80.6	19.5			63.4	51.6		32.8	15.0	
2003	55.8	20.0	163.0		222.8	111.4	28.0	86.6	33.6	49.4	15.8	72.2	
2004	315.6	47.8	25.4	117.0	14.2	68.6	65.4	20.0	44.2	71.2	102.0	53.2	944.6
2005	32.2	113.2	28.0	58.8	5.0	46.2	19.8	51.4	65.6	293.2	111.0	49.4	873.8
2006	49.2	70.8	41.0	47.2	56.4	41.6	71.2	5.0	33.0	29.8	27.8	32.4	505.4
2007	24.6	108.8	68.0		38.4	88.0	70.0	50.2	10.2	49.8	20.0		
2008	36.4	241.0	26.6	17.0	30.0	6.2	77.4	38.8	45.2	13.0	117.2	107.8	756.6
2009	4.0	42.0	55.2	36.8	18.4	276.0	35.0	124.4	197.2	69.0	132.4	73.0	1063.4
2010	87.4	59.4	69.2	26.0	159.0	30.0							
2011	188.0	122.0	215.0		20.0	71.0	28.0	180.0	45.8	44.4	82.6		
2012	17.2	43.8	81.2	60.0	113.4	85.0	25.0	15.2	67.2	*34.8*		23.4	
Year	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	**Annual**
2013	44.4	74.2	39.8	47.0	65.8	84.4	55.0	81.0	57.4	44.2	280.4	48.4	922.0
2014	19.0	25.0	61.4	41.0	21.8	43.0	113.8	96.8	15.8	85.6	26.8	98.2	648.2
2015	108.6	66.0	80.8	46.2	18.0	36.0	23.4	37.4	51.6	19.6	185.8	33.2	706.6
2016	210.2	31.4	92.6	7.2	133.5	275.2	64.4	11.6	131.6	48.0			
2017	140.0	21.8	31.0	38.2	101.2	0.0	8.4	17.8	16.0	17.2	36.2	92.6	520.4
2018	83.0	29.8	98.0	13.6	114.2	66.6	27.2	38.8	23.4	*32.2*	147.6	*162.8*	*837.2*
2019							12.8	38.8	123.6	42.2	37.2	7.0	

1950 Go View a year of daily data

Duration of annual pumping licence

Summary statistics for all years

Statistic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Mean	96.1	69.4	61.6	50.7	58.7	65.3	54.7	54.6	58.0	68.0	93.3	76.3	791.6
Lowest	4.0	14.2	7.6	7.2	5.0	0.0	4.4	5.0	10.2	5.6	15.8	7.0	503.3
5th %ile	12.6	18.3	8.9	9.8	7.0	8.2	7.8	13.0	15.9	14.7	21.7	8.7	505.1
10th %ile	18.3	21.4	17.0	15.0	12.9	18.0	11.0	17.3	17.4	19.1	27.3	14.1	515.5

452.6

Australian Government
Bureau of Meteorology

Monthly rainfall

The Monthly rainfall is the total of all available Daily rainfall for the month. Observations of Daily rainfall are nominally made at 9 am local clock time and record the total for the previous 24 hours. Rainfall includes all forms of precipitation that reach the ground, such as rain, drizzle, hail and snow. About monthly rainfall

Station: Douglas River **Number:** 92054 **Opened:** 1950 **Now:** Open
Lat: 41.78° S **Lon:** 148.25° E **Elevation:** 19 m

Key: Units are millimetres. *12.3* = Not quality controlled.

Duration of annual pumping licence

Statistic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual	
Median	50.4	59.4	54.7	47.0	33.1	44.6	49.0	47.8	45.5	49.2	90.1	50.4	825.7	359.3
90th %ile	231.3	115.0	111.4	97.8	136.1	115.8	100.5	91.5	132.4	123.8	160.0	135.3	1037.1	
95th %ile	299.8	128.1	153.5	113.8	161.6	223.0	111.0	113.4	158.9	155.9	182.4	194.4	1071.6	
Highest	371.8	241.0	215.0	118.8	222.8	276.0	179.8	180.0	197.2	293.2	280.4	465.4	1117.8	

Data within the table which are in italics represent observations which have not been fully quality controlled, a process which may take a number of months to complete. While these data may be correct, you should exercise caution in their use.

Gaps occur in the table where there are missing valid daily observations within the month. This is frequently associated with the observer being unavailable (where observations are undertaken manually), a failure in the observing equipment, or when an event has produced suspect data.

Product Code: IDCJAC0001 reference: 66593319

Page created: Wed 30 Sep 2020 20:33:38 PM AEST

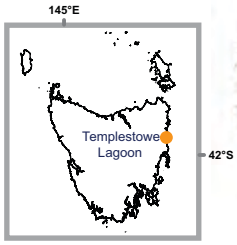
This page was created at on

Riches behind our beaches

The east coast of Tasmania is endowed with numerous coastal lagoons that are sheltered from swell waves by sand barriers such as beaches and sand dunes.

Coastal lagoons are flooded by both rivers and high tides and saltmarshes occur in this flooding zone.

Saltmarsh wetlands drive coastal food webs and provide important habitat for specialised plants and animals.



SALTMARSH LIFEFORMS

Grasses, sedges and rushes

- Grasses (*Phragmites*)
- Sedges (*Gahnia*)
- Rushes (*Juncus*)

Upland trees

- Paperbark (Melaleuca)

Microscopic organisms

Succulent herbs and shrubs

- Succulent herbs (*Sarcocornia*)
- Succulent herbs (*Samolus*)
- Succulent shrubs (*Tecticornia, Suaeda*)

Marine animals

- Worms
- Snails
- Crabs
- Fish

Insects and spiders

- Insects
- Spiders

Birds

- Blue Wren
- Chat
- Migratory birds
- Pied Oyster Catcher
- Waterbird
- Black Swan

Aquatic herbs and grass

- Seagrass (*Zostera, Ruppia*)
- Water milfoil (*Myriophyllum*)

Native marsupials

Humans

Decaying organic matter (wrack)

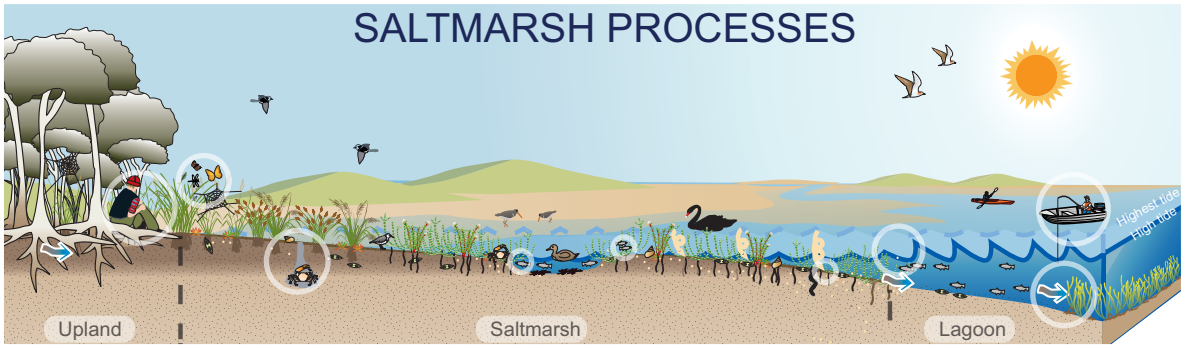
Education and research

Wetlands are live class-rooms for connecting with and learning about nature and provides a rich living laboratory for scientific research and development.

Upland vegetation

Native upland vegetation cover of 100-200 m improves water quality and coastal productivity in the immediate low lying area. Trees also provide habitat for a greater diversity of plants and animals.

SALTMARSH PROCESSES



Birdlife

Many species of birds (especially waterbirds and shorebirds) flock in and around saltmarshes. Their diversity and abundance are a sign of healthy wetlands.

Insects and spiders

A wide variety of insects and spiders can be found in saltmarshes. They form an important part of the saltmarsh food web and their abundance can vary over seasons.

Crabs and snails

Crabs and snails are the most abundant of saltmarsh invertebrates. They are a significant food source for birds and fish, and play an important role in the soil builing process by breaking down plant matter.

Tidal creeks

Tidal creeks are an integral part of salt-marsh and from branched networks within larger marshes. Besides providing habitat for fish and invertebrates, they also channel and dissipate the wave energy.

Fish nursery

Fish shelter and feed in saltmarsh during high tides on food derived from crabs, snails, insects and microalgae. Up to 35 species of fish have been recorded with densities of up to 56 fish found within an area of 100 square metres.

Carbon capture

Saltmarsh soil forms as the plants trap fine sediment (sand and mud) and organic particles generated by both plants and animals. This soil building process contributes to reducing global carbon pollution.

Coastal buffer

Saltmarshes provide a coastal buffer to soak up flooding water and dissipate the wave energy providing protection against extreme weather events and sea level rise.

Supports human use

Saltmarsh processes support human use of coastal areas for a range of recreational and commercial reasons including fishing and tourism.

Benefits nearby habitats

Water running off from the land is slowed down and filtered by saltmarsh and native upland vegetation. This improves coastal water quality and benefits the nearby submerged aquatic vegetation.

Project: Steps to Saltmarsh Conservation in Northern Tasmania, 2014
Project contact: Emma Williams, NRM North
Concept and text: Vishnu Prahalad, University of Tasmania
Aerial photo: Templestowe Lagoon by Matt Dell
Illustration: Michael Helman, adapted from Jan Tilden (2010)