

# Annual Waterways Report

## Blythe Catchment

Water Assessment Branch

2009

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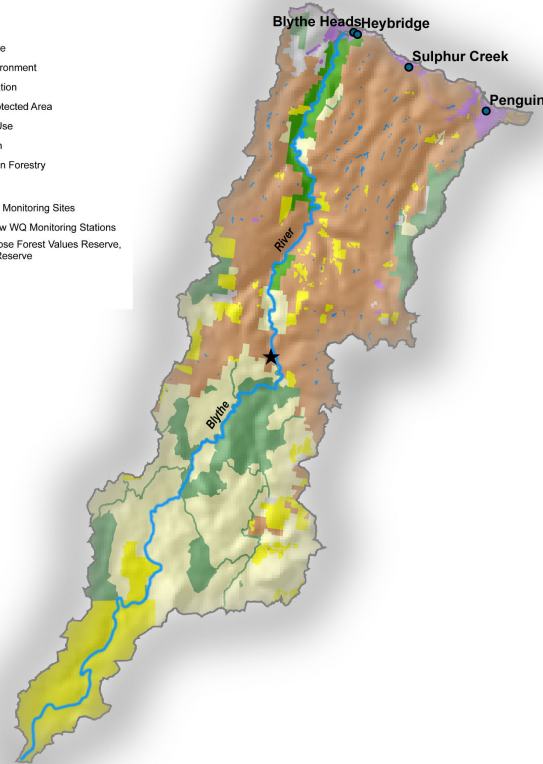
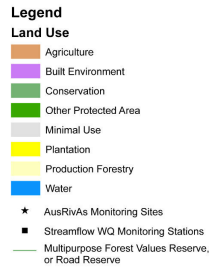
## Blythe Catchment

### Contents

1. About the catchment

2. Streamflow and Water Allocations

3. River Health



## 1. About the catchment

The Blythe River catchment is a long, narrow catchment that lies on the north coast of Tasmania and drains northward into Bass Strait east of Burnie at Heybridge.

The Blythe River is the only major river in the catchment (~62 km long) originating at the foothills of St Valentines Peak (1107 mASL). The annual average rainfall at the top of the catchment is around 2,200 mm dropping to around 970 mm at the catchment outlet at Heybridge.

Agriculture in the catchment is concentrated on hilltops to the east and west of the river in the lower half of the catchment, and the river is buffered from influence from this as it lies within a fairly confined valley with substantial riparian forest on either side. The upper catchment is largely forested, and the main land-use activities are timber harvesting and forest plantation management.

## 2. Streamflow & Water Allocation

### Streamflow

There are two streamflow monitoring stations maintained in the Blythe River catchment as part of the DPIW state-wide monitoring network. These are:

- Sulphur Creek (14206); and
- Chasm Creek upstream of Bass Hwy (14261).

14206 is an old station re-opened in December 2007. 14261 is a new station opened in June 2008. Stream level data at 14261 is yet to be converted into streamflow.

Sulphur Creek experienced lowest flows during summer and autumn, and highest flows in June. The minimum flow recorded during the year was 0.4 ML/day (Feb), and the maximum 95 ML/day (June).

Stream levels in Chasm Creek indicate that the highest recorded flows occurred in spring.

Monthly discharges in Sulphur Creek were less than historical averages in every month. The highest discharge was in July (1,217 ML).

### Water Allocation

The Blythe River catchment had a total of 6,614 ML in licensed allocations for 2008. The following table shows the breakdown of the allocations.

	<b>Total Allocation (ML)</b>
Irrigation	6,192
Stock & Domestic	191
Water supply	-
Other	231

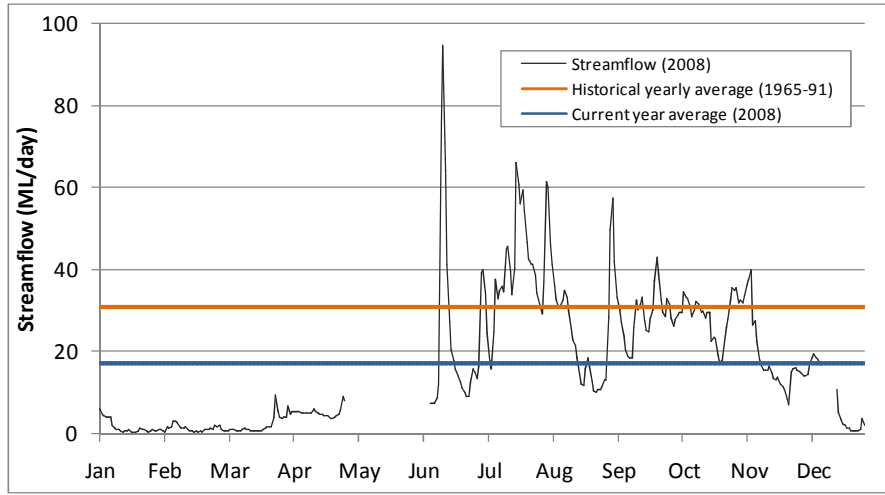
Of the total licensed water allocation within this catchment, 5,512 ML is held within constructed storages and 1,102 ML is taken directly from rivers and streams.

### Water Use Restrictions

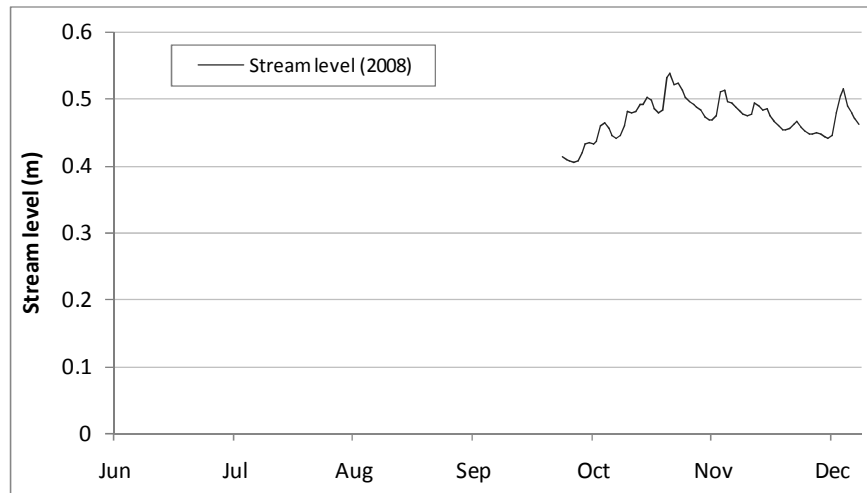
Water restriction triggers have been developed for the Blythe River catchment at Chasm Creek, as indicated in the following table. There were no restrictions put in place during 2008.

<b>River</b>	<b>ML/d</b>	<b>Stage</b>	<b>%</b>	<b>Restriction</b>
Chasm Creek at Bass Hwy	0.52	1	100	Ban on direct takes
	0.835	2	100	Ban on direct takes

# 2008 Waterways Monitoring Report

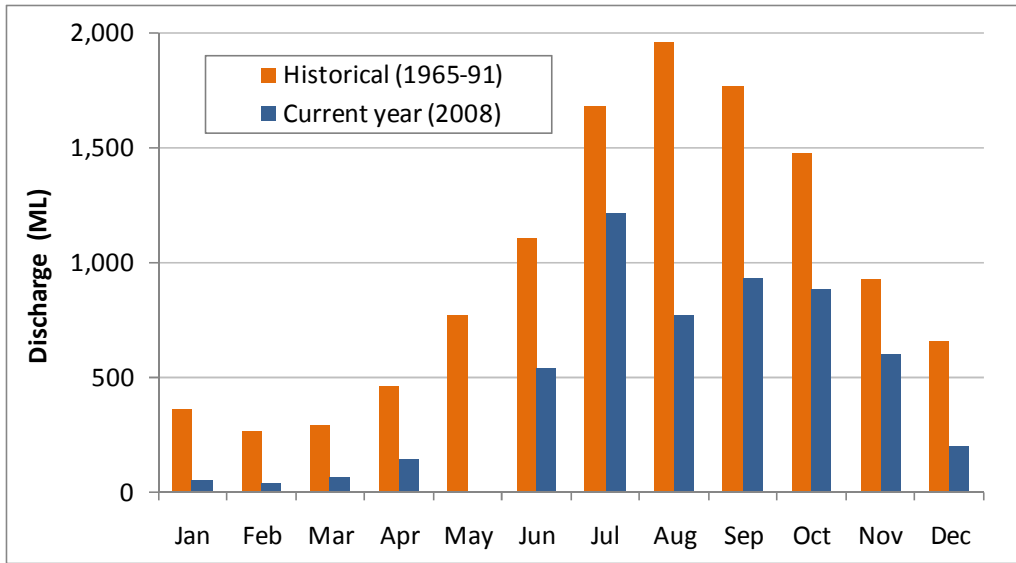


**Fig:** Time series of 2008 streamflow in Sulphur Creek (station 14206), plus a comparison of current year average flow with the historical.



**Fig:** Recorded stream levels in Chasm Creek upstream of Bass Hwy (station 14261).

# 2008 Waterways Monitoring Report



**Fig:** Comparison of total monthly discharge with historical average at Sulphur Creek (station 14206).

## 3. River Health

The Australian River Assessment System (AUSRIVAS) is a standardised national system for assessment of river condition that uses benthic macroinvertebrates.

The AUSRIVAS models predict the aquatic macroinvertebrate fauna that would be expected to occur at a site in the absence of environmental stress such as pollution, habitat degradation or flow regulation. A comparison of the macroinvertebrates expected to occur at the test site with those actually collected (O/E ratio) provides a site specific measure of the biological impairment of the test site. Further details about AUSRIVAS can be found at:

[www.ausrivas.canberra.edu.au/ausrivas](http://www.ausrivas.canberra.edu.au/ausrivas)

AUSRIVAS assessments are carried out at one a single location in the Blythe River catchment.



**Fig:** Blythe River at South Riana Road

### Blythe River at South Riana Road

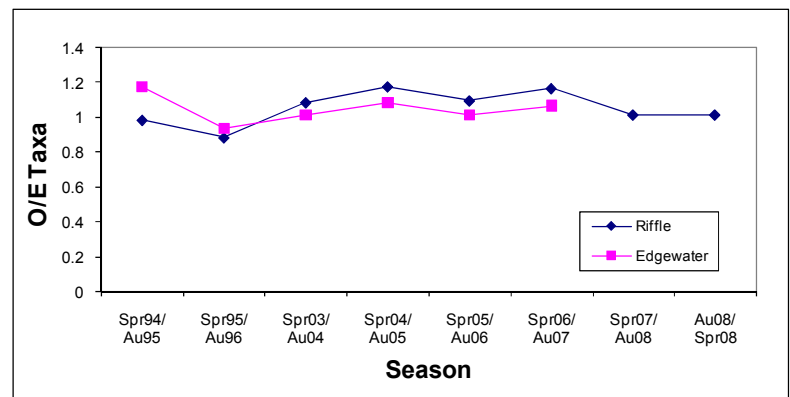
This site is located immediately upstream of the South Riana Road crossing in the middle reaches of the Blythe River catchment. Riparian vegetation is in good condition and is composed almost entirely of native species with minor intrusion by blackberries. There is also evidence that household rubbish is being dumped in the river at the site.

The river is characterised by deep runs and a boulder substrate. Some boulders are 1-2 metres across. The water is coloured by tannins, which is typical of rivers in this region.

Combined season AUSRIVAS assessments for both riffle and edgewater habitats are indicative of good riverine health. Combined season AUSRIVAS O/E values have been 0.88 or above (Band A or Band X) on all sampling occasions to date.

These findings are reflected in the single season assessments of the riffle and edgewater habitats. To date, the Spring 1995 riffle assessment is the only single season assessment that has classified the site as significantly impaired (Band B).

Name	Season	O/E Taxa Riffle	Band	O/E Taxa Edgewater	Band
Blythe River at South Riana Rd	Spr94/ Au95	0.98	A	1.17	X
	Spr95/ Au96	0.88	A	0.93	A
	Spr03/ Au04	1.08	A	1.01	A
	Spr04/ Au05	1.17	X	1.08	A
	Spr05/ Au06	1.09	A	1.01	A
	Spr06/ Au07	1.16	X	1.06	A
	Spr07/ Au08	1.01	A		NS
	Au08/ Spr08	1.01	A		NS



**Fig:** Combined season AUSRIVAS O/E Taxa scores for the Blythe River at South Riana Road