

Critical water planning for the Murrumbidgee Valley

Issue 35 | 15 June 2010

Rainfall during May 2010

Location	May Total (mm)	Proportion of Long-term May average	Total rainfall for 2009/10 (June – May) (mm)	Long-term average annual rainfall (mm)	Proportion of Long-term annual average
Thredbo Village	189	124%	2160	1745	124%
Gundagai	47	127%	667	584	114%
Griffith	62.6	175%	453	389	116%
Hay	75.8	217%	490	364	135%

The Murrumbidgee Valley received good rainfall in January and February lifting average monthly inflows to above the long-term average for the first time in many years. However the Murrumbidgee Valley and particularly the catchment areas did not receive the March and April rainfall that fell further to the north. Consequently inflows have reduced to little more than the minimum flows observed in recent years. Apart from the highlands, the remainder of the valley has received well below average autumn rainfall.

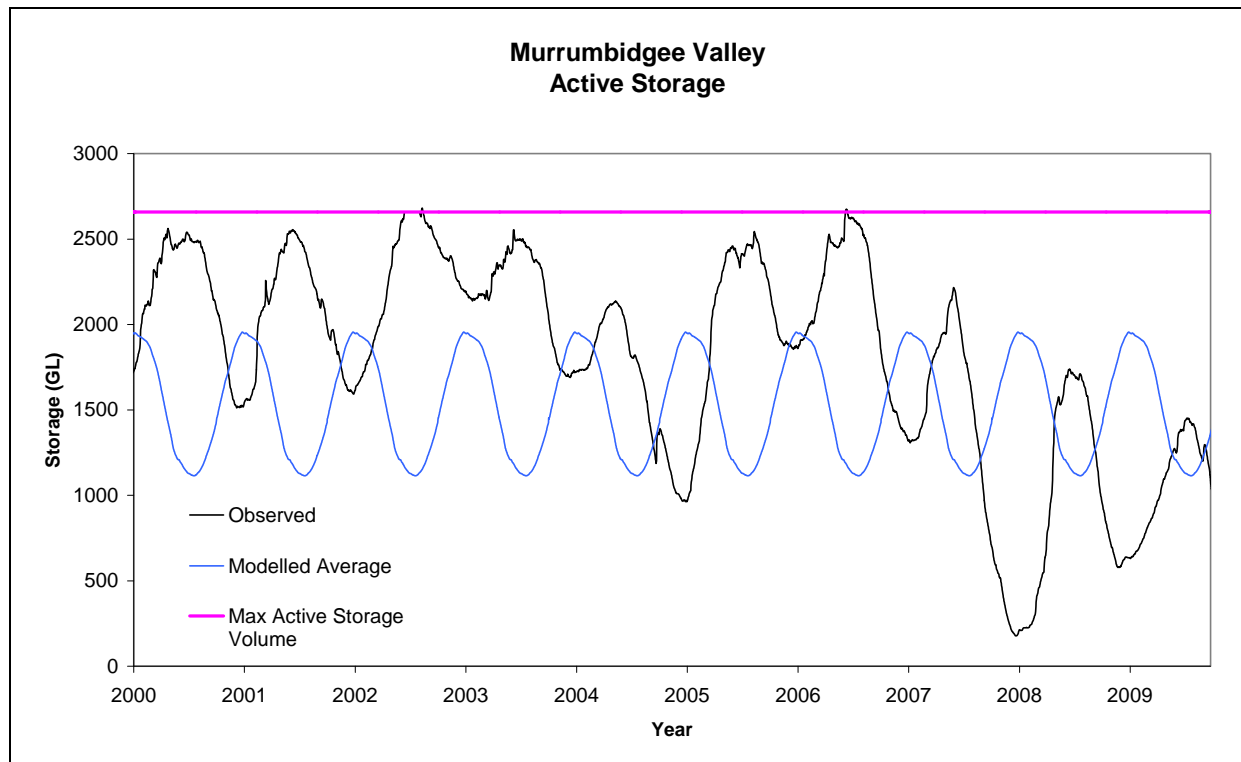
While rainfall earlier in the year lifted the annual rainfall totals across the valley to above the long-term average for the first time in many years, the Bureau of Meteorology has indicated that drier winter conditions can be expected with the chance of exceeding the median rainfall over the winter months being about 40 per cent. It is mainly the higher than average sea temperatures in both the Pacific and Indian Oceans that is influencing the drier rainfall outlook in southern NSW.

Storages

The following table shows Murrumbidgee Valley storage levels at 8 June 2010 and compares these volumes with those at this time last month and this time last year.

Storage @ 8 June	Volume (GL)	Capacity	Change in Volume from this time last month (GL)	Volume at this time last year (GL).	Change in volume from this time last year(GL)
Burrinjuck Dam	394	38.1%	+14	383	+11
Blowering Dam	623	37.3%	+33	512	+111
Total	1,017	37.6%	+47	895	+121

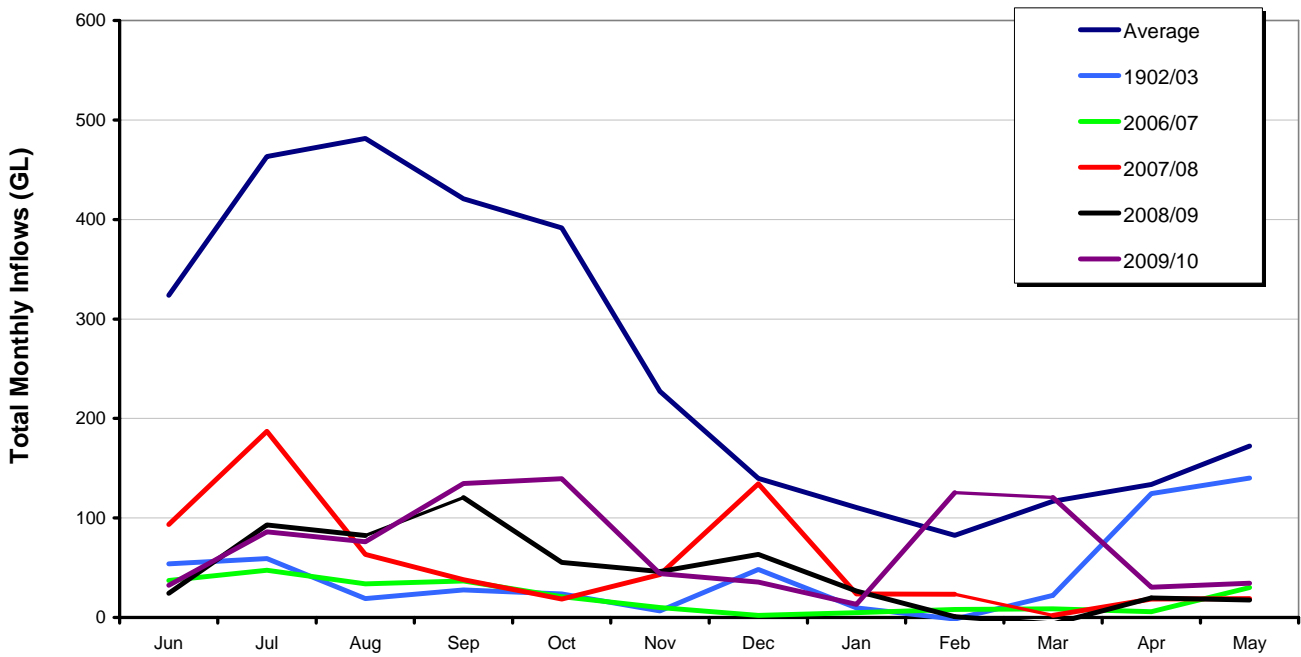
As at 8 June 2010 the Murrumbidgee total active storage is 1,017 GL and 37.6 per cent of the total active storage capacity. Although this is higher than this time last year it is still only about 80 per cent of the long-term average of 1,286 GL. At the end of 2008/09 there was significantly more in the IVT account (227 GL) than at the end of 2009/10.



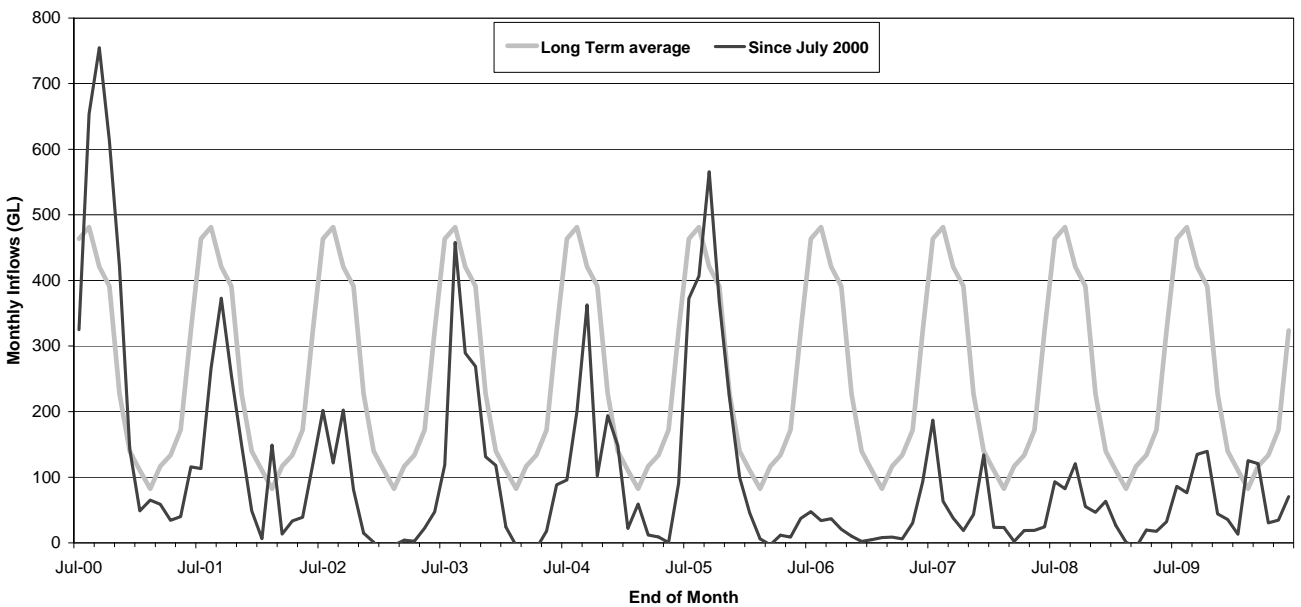
Inflow

Corresponding to the pattern of well below average rainfall for the past five years, inflows from the Murrumbidgee catchment into Burrinjuck and Blowering reservoirs have been extremely low. Natural inflows to Murrumbidgee dams and along tributaries below the dams in 2009-10 were only about 30 per cent of the long-term average of 3,061 GL.

Total Murrumbidgee Valley System Natural Inflows (excluding Snowy)
Selected Drought Years-v-Long term average



Inflows to the Murrumbidgee System
 (Excluding Snowy releases)



Murrumbidgee system natural inflows (excluding Snowy inflows)

	2009-10	2008-09	Historic Minimum (2006/07)	Long term average
Water year (July to June)	910 GL	557 GL	246 GL	3,061 GL

Water availability

In 2009/10, Murrumbidgee high and general security users were permitted to carry-over up to 30 per cent of entitlement in their water accounts. **This will also be the case for carry-over into 2010/11.** However, when the water sharing plan resumes carry-over rules will revert to those in the plan namely nil for high security and 30 per cent for general security water users.

This table outlines the volumes of water made available and used in the 2009/10 water year.

Licence Class	Volume available (GL)
Carryover	270
Town water supply	37
Domestic and stock	34
High Security	341
General Security	510
End of System Target	91
Environmental	94
InterValley Transfer (IVT)	227
Conveyance	270
Other *	89
Carry-over into 2010/11	590

* Reserves including critical human and non-human needs.

At 1 July 2009 there was 270 GL of water carried over in accounts into 2009/10.

It is expected that this figure will be about 590 GL into 2010/11.

Water allocation announcements 2009/10

Date	General security %	High security %	Carryover
1/07/2009	0%	0%	80% carry-over accessible
15/07/2009	0%	0%	90% carry-over accessible
3/08/2009	0%	5%	100% carry-over accessible
17/08/2009	0%	20%	
1/09/2009	0%	45%	
15/09/2009	0%	60%	
1/10/2009	3%	95%	
15/10/2009	4%		
23/10/2009	11%		
2/11/2009	14%		
30/11/2009	15%		
15/01/2010	18%		
15/02/2010	20%		
01/03/2010	24%		
15/03/2010	26%		
01/04/2010	27%		

The allocations for general security water users in the Murrumbidgee Valley have been well below average during the last five years of drought. The average general security allocations at the end of the season have been about 25 per cent during the drought years 2005-10 compared to the long-term average of 85 per cent

Recommencement of the water sharing plan

The water sharing plan will only be recommenced when there is sufficient water available to meet all urban, stock and domestic and high security demands through the worst recorded drought. This means that a 'guaranteed' supply of this water for the current year and following year, that is up to two years supply, is needed before the water sharing plan will be recommenced.

Practically, this means that until water availability in the Snowy Mountains Scheme recovers to the extent that it can supply the full Required Annual Release for two years with minimum inflows, the water sharing plan should not be recommenced. The probability of this occurring before 1 July 2010 is very low.

Should the water sharing plan be recommenced after the start of a water year, at least two rules will apply:

- Accounts will not be reduced because of the recommencement of the plan
- Normal plan account limits will apply

Trade

Trades from the Murrumbidgee to the Murray involve the physical transfer of water from the Murrumbidgee River to the Murray River. This usually occurs as flow through Balranald however, if agreement can be obtained with Snowy Hydro Limited (SHL) water can be released periodically through SHL infrastructure into the headwaters of the Murray River.

There is limited opportunity and capacity to transfer volumes through SHL. At the same time, high flows (greater than about 1,000 ML/d) through Balranald start to incur excessive transmission losses which can impact on third-parties.

The NSW Office of Water restricted trades from the Murrumbidgee River Valley for the 09/10 year because a large backlog of undelivered Inter Valley Trade (IVT) water from the previous year had to be transferred from the valley. As the year progressed IVT water left the valley, including by transfer through the Snowy Mountains Scheme, capacity for additional trades was created. In an effort to be as fair as possible to large and smaller water users alike, a ballot system was used to access trade opportunities. Three ballots were conducted during the year, most fully subscribed, resulting in trade volumes of 62.4 GL, 42 GL and 60 GL respectively.

Following feedback from the Critical Water Advisory Group, the ballot system will not be used in the 2010/11 water year unless it is determined that unrestricted trade results in inequitable access and/or uncertainty of delivery.

Trade from the Murrumbidgee Valley will re-open on 1 July 2010. It is intended that trade into and out of the Valley will not be restricted, however the NSW Office of Water will monitor nett volumes traded and will take action where necessary to ensure that the 'cost' of trades in terms of transmission losses is kept to acceptable levels to minimise any potential third party impacts.

Environmental flow management

Approximately 113 GL of water was borrowed from the Murrumbidgee *Environmental Water Account* in November 2006. This water has been repaid progressively with improving conditions with the final instalment being repaid on 1 March 2010.

The NSW Office of Water has developed interim rules to ensure that water is provided to the environment as a priority while the Murrumbidgee Water Sharing Plan remains suspended.

Urban water usage

Following advice from the Critical Water Advisory Group, the Murray and Murrumbidgee town water restrictions policy will be relaxed for the start of the 2010/11 water year. Water availability will be closely monitored thereafter with a view to implementing the water restrictions policy from 1 September 2010.

Under the policy, town water restriction levels are linked to High Security water allocations as follows:

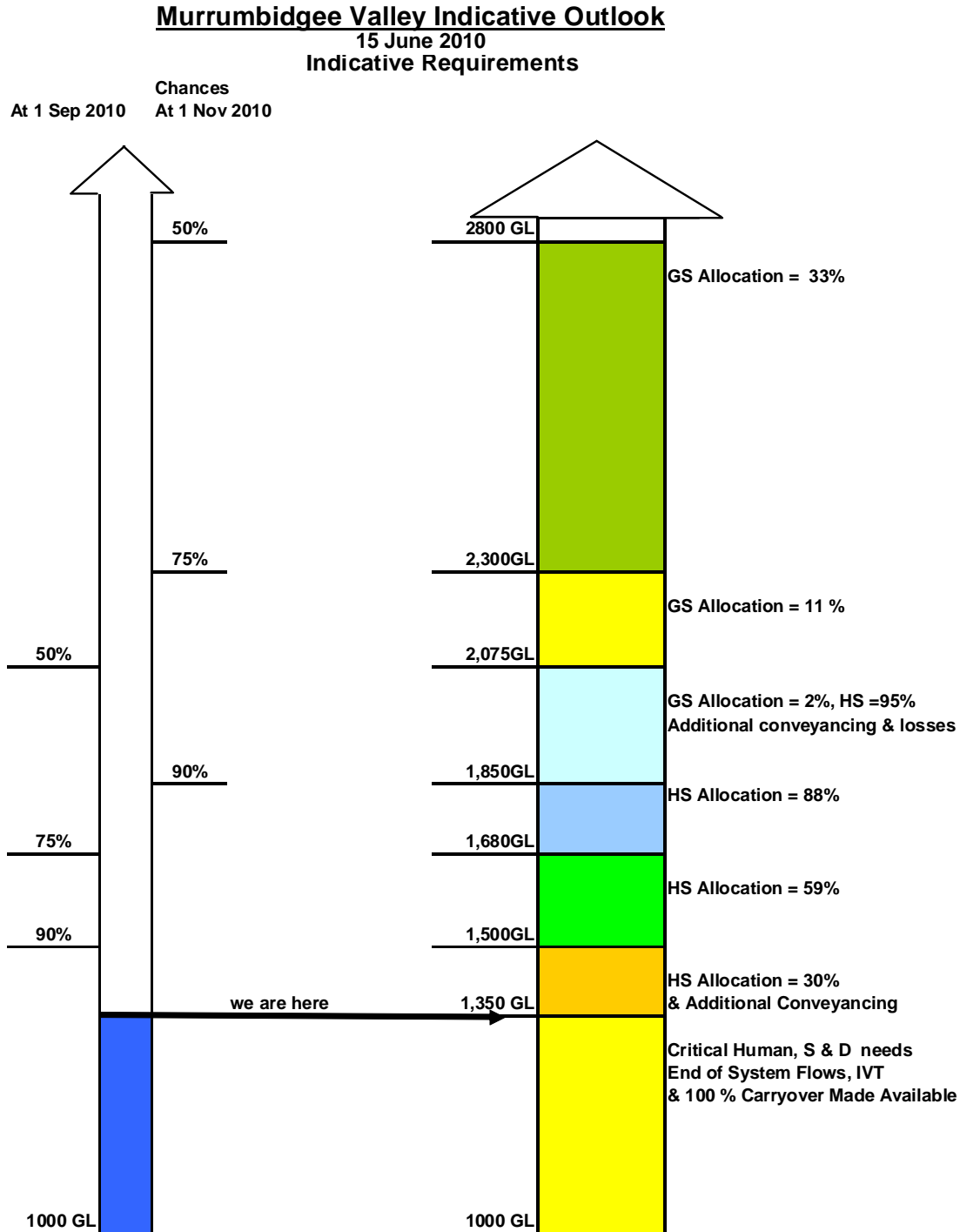
High Security water allocation (as a percentage of the licensed entitlement)	Level of town water restrictions
Less than and up to 20 per cent	Level 4 – no outside watering
Greater than 20 per cent and up to 40 per cent	Level 3a – maximum of four hours watering per week. No lawn watering
Greater than 40 per cent and up to 60 per cent	Level 3 – maximum of eight hours watering per week. No lawn watering
Greater than 60 per cent and up to 80 per cent	Level 2a – maximum of eight hours watering per week, including restricted lawn watering
Greater than 80 per cent and all water for critical human needs for the next water year has been reserved	To be determined by council

In addition to the trigger points, the following rules will apply:

- Councils may purchase water on the temporary market to allow town water restrictions to be eased from Level 4 up to Level 3 restrictions. However, this does not apply to groundwater in towns where water is being diverted from emergency bores that have been funded by the NSW Government to provide for critical human needs.
- Councils will be able to water parks, school grounds and sports fields within their town water supply allocation.
- Private diverters and domestic bore owners will be required to observe the same restrictions as their local council area.
- Town water supplies from aquifers are subject to same restrictions as surface water.

Outlook and water availability for 2010/11

Although reserves are better than this time last year, the lack of autumn rain and the forecast drier than median winter rainfall conditions will keep opening year general and high security water allocations low or zero. The likelihood of improved conditions as the year progresses is as follows:



Compliance

The NSW Office of Water's Drought Contingency Planning Program will only work if everyone adheres to the restrictions where these apply and is conservative with **all** water use. To ensure that the system is run fairly, the community should report any suspected breaches to the NSW Office of Water's Compliance Unit via phone 1800 633 362 or by email to watercompliance@water.nsw.gov.au All reports are treated confidentially.

Contact: Anne Brook 02 6701 9662

The NSW Office of Water is a separate office within the
Department of Environment, Climate Change and Water

NOW 10_153b