

REPORT FOR THE WEEK ENDING

Wednesday, 9 July 2008

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11 July, 2008



Rainfall and Inflows

During the past week, north-eastern Victoria received good falls of rain, particularly in the Upper Murray where some locations received over 50 mm (see Map 1). Whitlands, in the catchment of the Ovens River received the highest fall of 76 mm. The southeast and northeast of the Basin received some rain (between 15 and 50 mm), while the northwest received little or none.

The rain resulted in some slight increases in inflows, mainly from the Ovens River but also into Dartmouth and Hume Reservoirs. The flow in the Murray at Biggara rose from 200 to 1 400 ML/day and the flow in the Ovens at Wangaratta rose from 700 to 2 500 ML/day. However, these rises are now quickly receding and further rain is required to keep the stream flows elevated.

June 2008 Summary

June inflow to the Murray System (excluding Snowy releases and Menindee Lakes inflows) totalled only about 95 GL, slightly below the 110 GL experienced in 2006, and therefore setting a new record low for the month of June (see *Drought Update and media release attached*). Total MDBC storage (including Menindee Lakes) increased by 134 GL during June to around 2 023 GL (22 % capacity).

River Operations

Release from Yarrawonga Weir is being maintained at the winter minimum of 1 800 ML/day and the slightly higher inflows from the Kiewa and Ovens Rivers are being stored to raise the level of Lake Mulwala (it is currently 122.16 m AHD). The lake is being raised to the level necessary to ensure that stock and domestic water can be diverted at the required rates into Mulwala Canal and Yarrawonga Main Channel by late July and early August respectively.

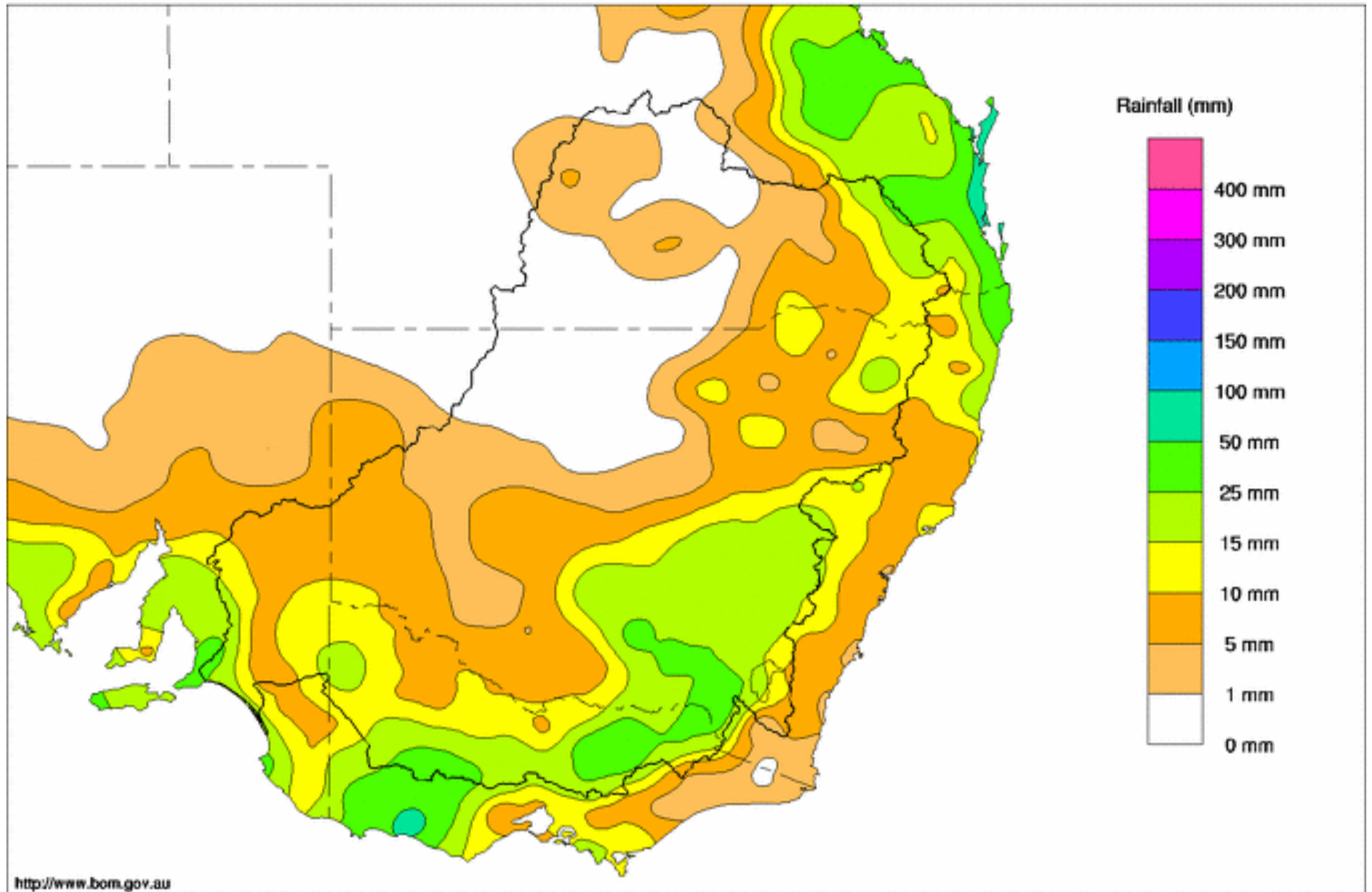
The low releases from Yarrawonga Weir and low river levels through the Barmah/Millewa Forest have reduced flows down the Edward and Gulpa offtakes (60 and 30 ML/day respectively). Without significant rain over the coming weeks, the flow at Moulamein on the Edward River is expected to fall as low as 150 ML/day until at least early August (see media release attached).

Mildura Weir pool has returned to Full Supply Level, resulting in an increase in release from 1 300 to 2 300 ML/day. The salinity at Mildura has continued to fall from 320 EC to around 170 EC (close to pre-drawdown concentrations). The higher salinity water associated with the drawdown is now approaching Lake Victoria. In the next couple of days this water will commence being diverted into Lake Victoria where it will mix with a large volume of less saline water. There will be no flow over Lock 9 for about two weeks. Water stored in Lock 8 pool (currently 50 cm above FSL) will be drawn upon to maintain the flow along Mullaroo Creek.

Murray River users will not be able to pass through Lock 5 at Paringa in South Australia for about three months from 14 July while vital maintenance work is undertaken by SA Water on behalf of the Murray-Darling Basin Commission (see media release attached). Flow to South Australia is currently 1 450 ML/day. Lakes Alexandrina and Albert are both about -0.4 m AHD, 40 cm below mean sea level.

DAVID DREVERMAN
General Manager

Murray Darling Rainfall Analysis (mm) Week Ending 9th July 2008
Product of the National Climate Centre



<http://www.bom.gov.au>

Water in Storage

MDBC Storages	Full Supply Level (m AHD)	Full Supply Volume (GL)	Current Storage Level (m AHD)	Current Storage		Dead Storage (GL)	MDBC Active Storage (GL)	Change in Storage for the week (GL)
				(GL)	%			
Dartmouth Reservoir	486.00	3 906	411.88	702	18%	80	622	+5
Hume Reservoir	192.00	3 038	173.54	521	17%	30	491	+31
Lake Victoria	27.00	677	23.57	301	45%	100	201	-1
Menindee Lakes		1 731 *		538	31%	(- -) #	0	-2
Total		9 352		2 062	22%	--	1 314	+33

* Menindee surcharge capacity 2050 GL

% of Total Active MDBC Storage = **15%**

NSW takes control of Menindee Lakes when storage falls below 480 GL, and control reverts to MDBC when storage next reaches 640 GL

Major State Storages

Burrinjuck Reservoir	1 026	429	42%	3	426	+2
Blowering Reservoir	1 631	610	37%	24	586	+1
Eildon Reservoir	3 390	500	15%	100	400	+20

Snowy Mountains Scheme

Snowy diversions for week ending 08-Jul-2008

Storage	Active storage (GL)	Weekly change (GL)	Diversions (GL)	This week	From 1 May 2008
Lake Eucumbene - Total	136	+4	Snowy-Murray	+12	184
Snowy-Murray Component	199	-6	Tooma-Tumut	+9	30
Target Storage	1 170		Nett Diversion	2.7	154
			Murray 1 Release	+17	214

Major Diversions from Murray and Lower Darling (GL)

New South Wales	This week	From 1 July 2008
Murray Irrig. Ltd (Net)	.0	.0
Wakool System loss	0.0	.0
Western Murray Irrig.	0.0	.0
Licensed Pumps	0.3	.5
Lower Darling	0.1	.1
TOTAL	0.4	.6

Victoria	This week	From 1 July 2008
Yarrowonga Main Channel (net)	.0	
Torrumbarry System + Nyah (net)	0.0	
Sunraysia Pumped Districts	0.4	*
Licensed pumps - GMW (Nyah+u/s)	0.0	1
Licensed pumps - LMW	0.3	
TOTAL	0.7	2 *

* please note that these values do not include Millewa pumping figures.

Flow to South Australia (GL)

Entitlement this month	109 *	(1 400 ML/day)
Flow this week	9.7	
Flow so far this month	13	
Flow last month	57	

* Reduced to approx. 45 GL during June drought contingency operations

Salinity (EC)

(microsiemens/cm @ 25° C)

	Current	Average over the last week	Average since 1 August 2007
Swan Hill	80	70	90
Euston	90	90	110
Red Cliffs	-	-	130
Merbein	240	320	160
Burtundy (Darling)	320	340	840
Lock 9	140	140	160
Lake Victoria	250	240	200
Berri	400	400	350
Waikerie	-	-	510
Morgan	440	440	540
Mannum	560	560	650
Murray Bridge	670	620	680
Milang (Lake Alex.)	3 390	3 470	3 040
Poltalloch (Lake Alex.)	3 250	3 440	2 630
Meningie (Lake Alb.)	5 460	5 420	3 420
Goolwa Barrages	22 810	23 100	20 990



River Levels and Flows

River Murray	Minor Flood stage (m)	Gauge height		Flow (ML/day)	Trend	Average flow this week (ML/day)	Average flow last week (ML/day)
		local (m)	(m AHD)				
Khancoban	-	-	-	2 040	F	2 990	2 490
Jingellic	4.0	1.75	208.27	5 220	R	4 190	2 730
Tallandoon (Mitta Mitta River)	4.2	1.49	218.38	800	R	600	510
Heywoods	5.5	1.11	154.74	430	S	400	360
Doctors Point	5.5	1.58	150.05	1 600	R	1 100	990
Albury	4.3	0.68	148.12	-	-	-	-
Corowa	7.0	0.39	126.41	1 090	S	1 020	1 000
Yarrowonga Weir (d/s)	6.4	0.31	115.35	1 820	S	1 820	1 800
Tocumwal	6.4	0.77	104.61	2 010	S	1 970	1 980
Torrumbarry Weir (d/s)	7.3	0.92	79.47	2 120	R	2 000	2 200
Swan Hill	4.5	0.61	63.53	2 110	F	2 090	2 840
Wakool Junction	8.8	1.52	50.64	2 540	R	2 380	3 450
Euston Weir (d/s)	8.8	0.50	42.34	2 330	R	2 650	3 980
Mildura Weir (d/s)	-	-	-	2 340	F	2 240	2 040
Wentworth Weir (d/s)	7.3	2.94	27.70	2 520	R	1 780	1 170
Rufus Junction	-	2.46	19.39	770	F	890	1 000
Blanchetown (Lock 1 d/s)	-	-0.41	-	1 030	S	1 030	1 160
Tributaries							
Kiewa at Bandiana	2.7	1.57	154.80	1 450	R	910	810
Ovens at Wangaratta	11.9	8.44	146.12	2 047	R	1 170	540
Goulburn at McCoys Bridge	9.0	1.09	92.51	339	R	310	320
Edward at Stevens Weir (d/s)	-	0.32	80.09	110	F	120	270
Edward at Liewah	-	0.79	56.17	335	F	330	270
Wakool at Stoney Crossing	-	0.88	54.37	0	R	0	-
Murrumbidgee at Balranald	5.0	0.18	56.14	49	S	50	50
Barwon at Mungindi	-	3.21	-	44	S	50	30
Darling at Bourke	-	4.01	-	85	R	50	10
Darling at Burtundy Rocks	-	0.70	-	52	R	30	30

Natural Inflow to Hume (ie pre Dartmouth & Snowy Mountains scheme)	4 310	2 560
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Weirs and Locks

Pool levels above or below design level

Murray	FSL (m AHD)	u/s	d/s		FSL (m AHD)	u/s	d/s
Yarrowonga	124.90	-2.74	-	No. 7 Rufus River	22.10	-0.07	+0.13
No 26 Torrumbarry	86.05	-0.20	-	No. 6 Murtho	19.25	-0.03	+0.05
No. 15 Euston	47.60	-0.08	-	No. 5 Renmark	16.30	+0.12	+0.18
No. 11 Mildura	34.40	+0.03	+0.08	No. 4 Bookpurnong	13.20	+0.14	+0.30
No. 10 Wentworth	30.80	+0.05	+0.30	No.3 Overland Corner	9.80	+0.15	+0.21
No. 9 Kulnine	27.40	+0.16	+0.48	No. 2 Waikerie	6.10	+0.13	+0.17
No. 8 Wangumma	24.60	+0.52	-0.04	No 1. Blanchetown	3.20	+0.12	-1.16

Murrumbidgee	FSL (m AHD)	relation to FSL	d/s gauge ht.		Flow (ML/day)
			local (m)	(m AHD)	
No. 7 Maude	75.40	-3.83	0.616	69.966	258
No. 5 Redbank	66.90	-5.23	0.167	61.467	284.04



Lower Lakes

FSL = 0.75 m AHD

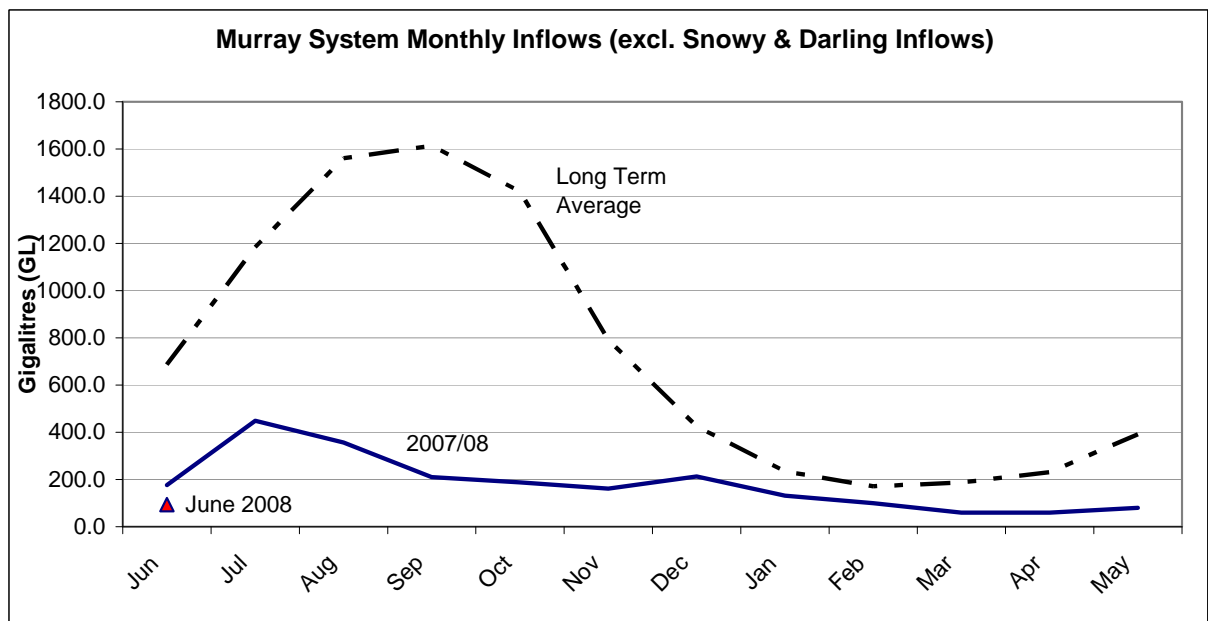
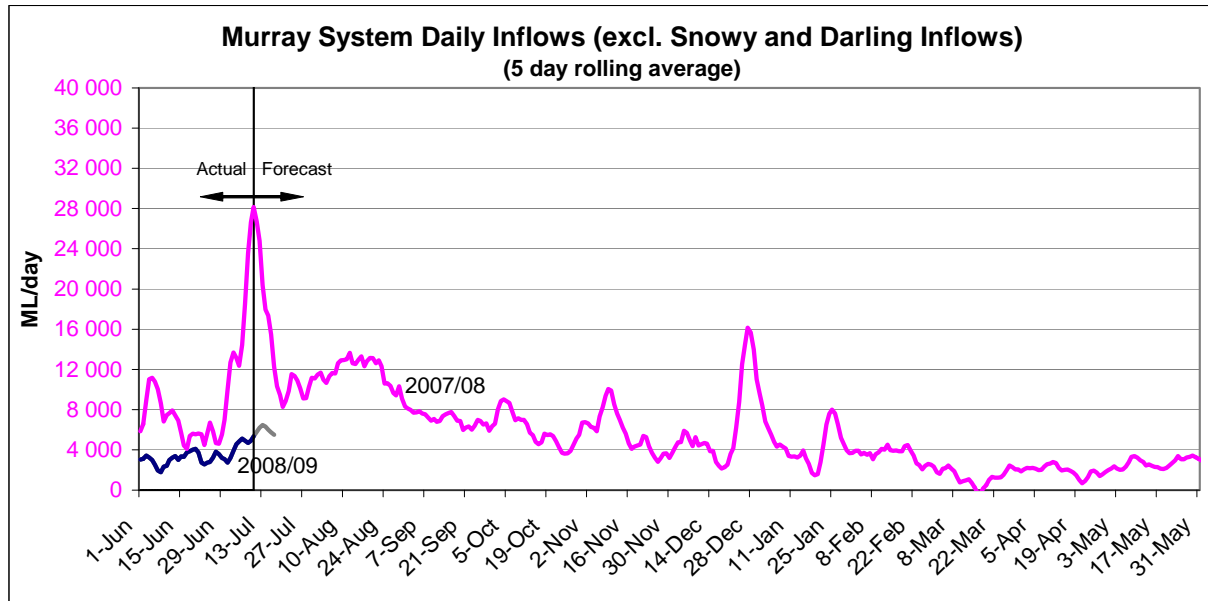
	(m AHD)
Lake Alexandrina average level for the past 5 days	-0.43

Barrages

Fishways @ Barrages

	Openings	Level (m AHD)	Status	Rock Ramp	Vertical Slot
Goolwa	128 openings	-0.36	All closed	-	Closed
Mundoo	26 openings	-0.36	All closed	-	-
Boundary Creek	6 openings	-	All closed	-	-
Ewe Island	111 gates	-	All closed	-	-
Tauwitchere	322 gates	-	All closed	Closed	Closed

AHD = Level relative to Australian Height Datum, i.e. height above sea level



State Allocations (as at 9th July 2008)

NSW - Murray Valley

High security	0%
General security	0%

NSW - Murrumbidgee Valley

High security	0%
General security	0%

NSW - Lower Darling

High security	100%
General security	0%

Victoria - Murray Valley

high reliability	0%
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Victoria - Goulburn Valley

high reliability	0%
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South Australia - Murray Valley

irrigation allocation	2%
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NSW : http://www.naturalresources.nsw.gov.au/water/state_mm_murr_water_quality.shtml#alloc
 VIC : <http://www.g-mwater.com.au/water-resources/allocations/current.asp>
 SA : <http://www.dwlbc.sa.gov.au/media.html>



MEDIA RELEASE

(Monday, 7 July 2008)

LOW FLOW ALONG EDWARD RIVER DURING JULY

Murray-Darling Basin Commission (MDBC) Chief Executive Dr Wendy Craik AM confirmed today that there will be very low flow along the Edward River and Gulpa Creek over the coming weeks unless there is significant rainfall.

“The release from Yarrawonga Weir has been reduced to the minimum release of 1 800 ML/day in order to increase the level of Lake Mulwala and allow for diversions into the Mulwala Canal and Yarrawonga Main Channel offtakes in late July and early August,” Dr Craik said.

Lake Mulwala is currently about 3 m below full supply level due to water being released from the Lake in June to minimise the river salinity when Mildura Weir was fully drawn down for maintenance purposes.

“The 1 800 ML/day downstream of Yarrawonga Weir is currently only providing about 60 ML/day into the Edward River offtake and 30 ML/day into Gulpla Creek,” Dr Craik said.

NSW State Water has been gradually lowering the level in Stevens Weir over the past month to sustain a minimum flow in the Edward River. However the weir gates of Stevens Weir are now completely removed and the pool can no longer be drawn upon to maintain the flow in the river.

The flow at Moulamein is currently about 320 ML/day and is expected to reduce to less than 150 ML/day over the coming weeks if there is no significant rainfall and upstream river levels remain low.

The level in Lake Mulwala will be increased over the coming weeks to enable Murray Irrigation to divert water into the Mulwala Canal in late July or early August.

Some of the water diverted into the Mulwala Canal will be released into the Edward River via the Edward Escape to help refill Stevens Weir and to increase the flow in the Edward River downstream of Stevens Weir in late July or early August.

Flow rates downstream of Yarrawonga Weir will be continually reviewed and updates on changes to river flows along the Edward River will be announced over the coming weeks in the RMW Weekly Report (available on the MDBC web page).

Boat operators, stock owners, river pumpers and other river users are advised to take these very low river levels along the Edward River and Gulpa Creek into account and make any necessary adjustments to their activities.

Media contact: Sam Leone, MDBC Media Liaison Manager, Phone: 0407 006 332

Trim Ref: 08/6331



MEDIA RELEASE

Tuesday, 8 July, 2008

Paringa's Lock 5 to close for repairs, upgrade

Murray River users will not be able to pass through Lock 5 at Paringa in South Australia for about three months from July 14 while vital maintenance work is undertaken by SA Water on behalf of the Murray Darling Basin Commission (MDBC).

MDBC Chief Executive Dr Wendy Craik AM said the lock would be closed until the beginning of October as part of a six-year maintenance program on all of the locks along the river.

“The only other lock to be closed during the next few months is Lock 10 at Wentworth, New South Wales, which closed in May and will re-open in September,” Dr Craik said.

“This is the first time we have planned to empty the lock chambers at Lock 5 since 1965 when the wooden gates were replaced with steel. The empty locks will allow SA Water to do a comprehensive inspection of the underwater components, Dr Craik said.

“Although users will not be able to travel the full length of the River at times during this period, they will still be able to enjoy using the river either upstream or downstream of Lock 5.”

SA Water Head of Regional Operations Rob Dowling said that during works people would still be able to travel upstream from Renmark and downstream from Berri, but will not be able to travel between the two towns. “The grounds and facilities around the lock will also be closed to the general public and will reopen once work is finished,” Mr Dowling said.

Works to be carried out on Lock 5 include:

- Constructing temporary dams on the upstream and downstream ends of the lock chamber
- De-watering the lock chamber
- Inspecting and repainting the lock chamber gates
- Replacing the 12 large valves which control the flow of water into and out of the lock chamber
- Inspection of the chamber floor and undertaking any repairs on components which would normally be submerged

“We have consulted with River Murray tourism operators to develop the works program to ensure we avoid the peak boating season and we will be working as quickly as possible to minimise the interruption,” Mr Dowling said.

“We will notify the community when the work at each lock is complete and the lock chamber is back in operation. The lock and weirs have been in service for over 80 years now and this work will ensure that they continue to operate for a long time to come.”

The next lock scheduled for maintenance is Lock 1 at Blanchetown and it is anticipated work will begin at the end of January 2009. The public will be notified prior to the closure of the lock.

Media contacts: Sam Leone, MDBC Media Liaison, Phone: 0407 006 332

Trim ref: 08/6327



MURRAY SYSTEM

Drought Update

ISSUE 14: JULY 2008

IN BRIEF

- The drought in the Murray-Darling Basin is getting worse. Murray system inflows in autumn approached the record lows seen in 2007. June inflows were the lowest on record. The chance that upper Murray inflows will be above average for the remainder of winter and spring is very low. Until there is significant rain and run-off, the prospects for irrigation and the environment in 2008-09 are grim.
- The most recent seasonal climate outlook issued by the Bureau of Meteorology shows a shift in the odds towards drier than average conditions in across the Murray-Darling Basin from July to September, including the high yielding catchments of the upper Murray and its tributaries.
- Critical water for human needs (including stock and domestic) for 2008-09 is reasonably assured for those who draw their water from the main stem of the Murray. Further inflows in excess of the minimum used for planning are needed to assure water is available to those who take water from anabranches or major channel systems.
- Headwater storage levels are slightly higher than the record low levels of this time last year (due to higher levels of carryover) but are still well below average.
- The water level in the Lower Lakes has temporarily stabilized, but unless there is a significant improvement in water availability for South Australia, the outlook for the next 12 months is extremely poor.
- 2008-09 is shaping up to be a very tough year in terms of consumptive water availability and there is likely to be continuing pressure on the riverine environment. The new water year is also likely to pose operational challenges with low river flows and varying weir pool levels.

2007-08 SUMMARY

For the year ending June 2008, total inflow to the Murray River System, (excluding Darling inflows and Snowy Scheme releases) was 2,220 GL which was the 6th lowest in 117 years of records (see Figure 1) and only 25 % of the long term average of 8,900 GL. The 2007-08 year was preceded by record low inflows in the previous year of 970 GL, and the combined two year total of 3,190 GL was the lowest on record (and only 53 % of the previous minimum in 1914-1916). Figure 2 compares the monthly inflows for 2007-08 with the record lows of 2006-07 and the long term averages.

Figure 1. Murray system annual inflows (excluding Darling inflows and Snowy releases)

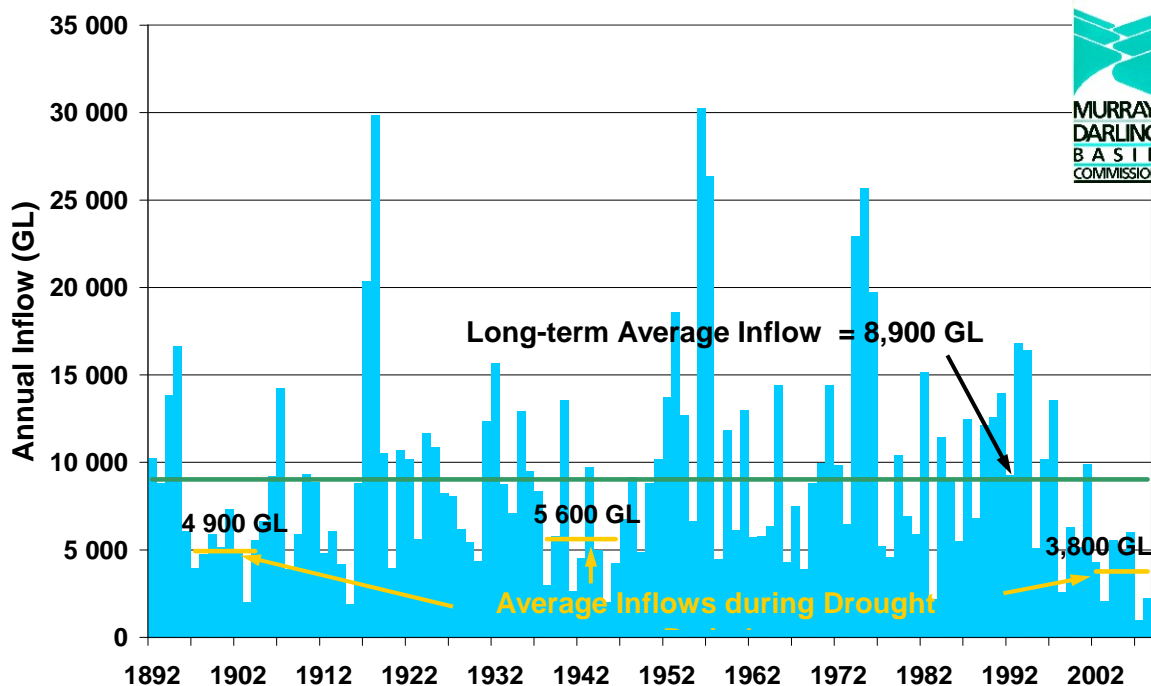
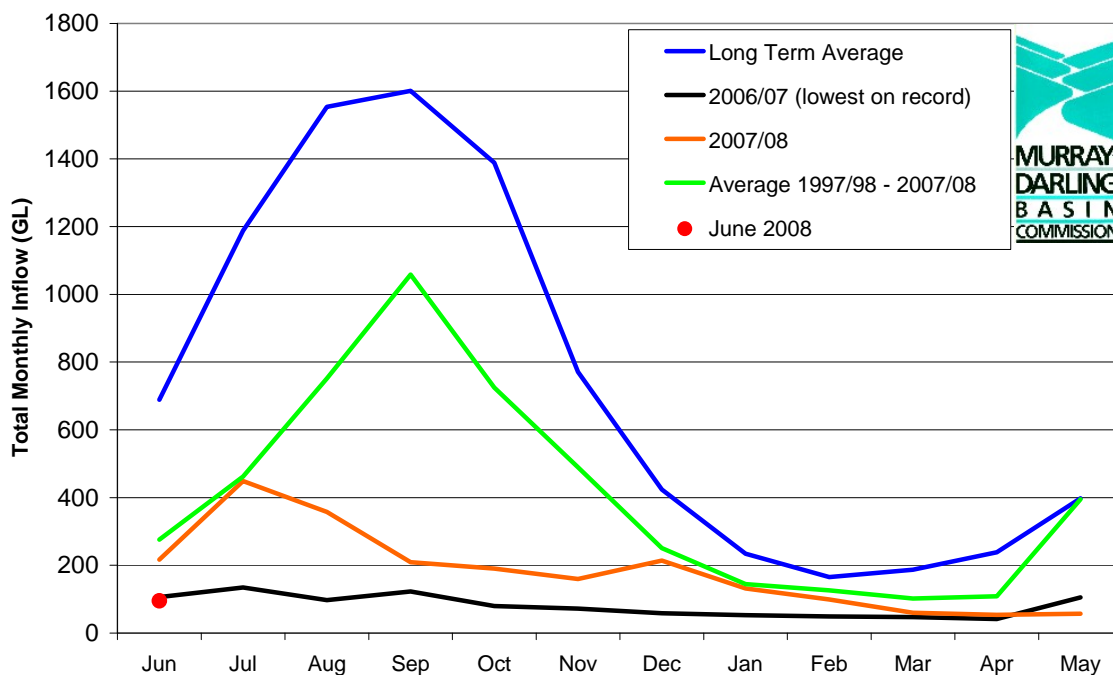
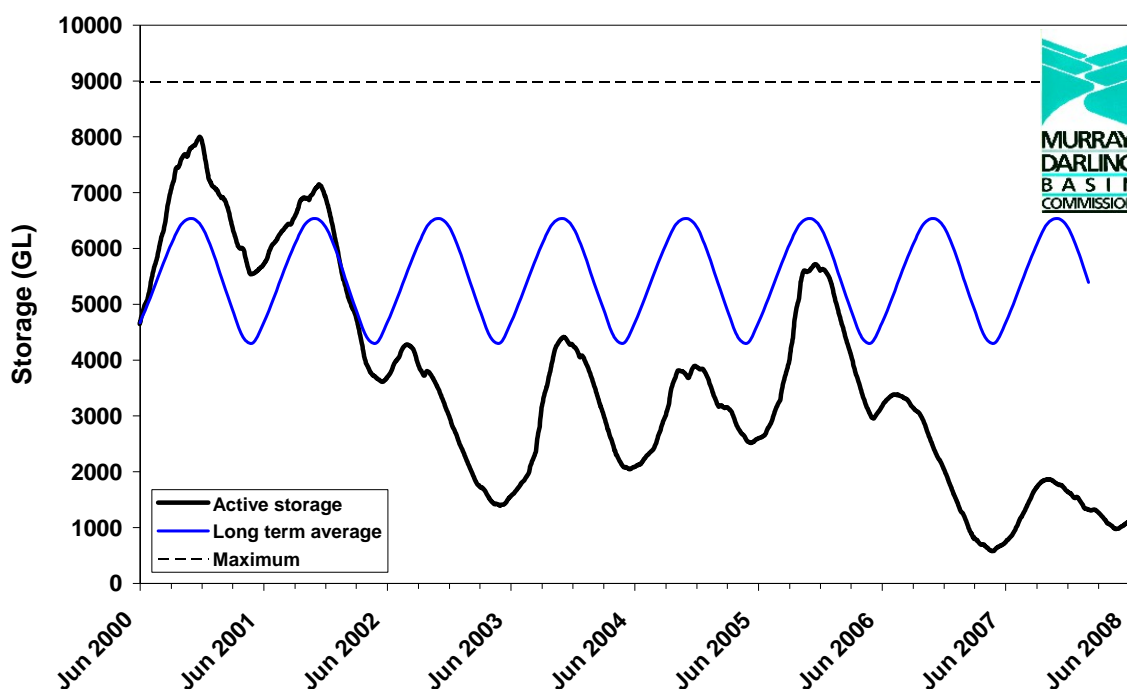


Figure 2. Murray system monthly inflows (excluding Darling inflows and Snowy releases)



The volume of active storage under control of the Commission at the end of June 2008 was 1,270 GL or 15 % capacity (but about 400 GL is carried over from 2007-08 by individual license holders). The end of year active storage was 280 GL more than the record low of 990 GL in June 2007, but only 27 % of the June long term average of 4,700 GL. Storage levels have now been below average since early 2002 (Figure 3). A further 540 GL was stored in Menindee Lakes (which remains under NSW control), and up to 170 GL is committed to underwrite Murray system contingencies for 2008-09. Menindee Lakes also supplies Broken Hill with drinking water.

Figure 3. MDBC active storage; June 2000 to June 2008.



The combined effect of low storage levels and low inflows, resulted in record low State irrigation allocations across the Murray River system for 2007-08. In Victoria, the high reliability allocation for the Murray reached 43 %. In NSW the high security allocation for the Murray reached 25 % and the general security remained at zero. In South Australia the Murray allocation reached 32 %.

The actual amount of water diverted was 1,480 GL which is about half that of 2006-07 and one third of a 'non drought' water year (see Table 1 and Figure 4). Additionally, about 400 GL of water allocated in 2007-08 was carried over by individual water license holders in preparation for the 2008-09 water year.

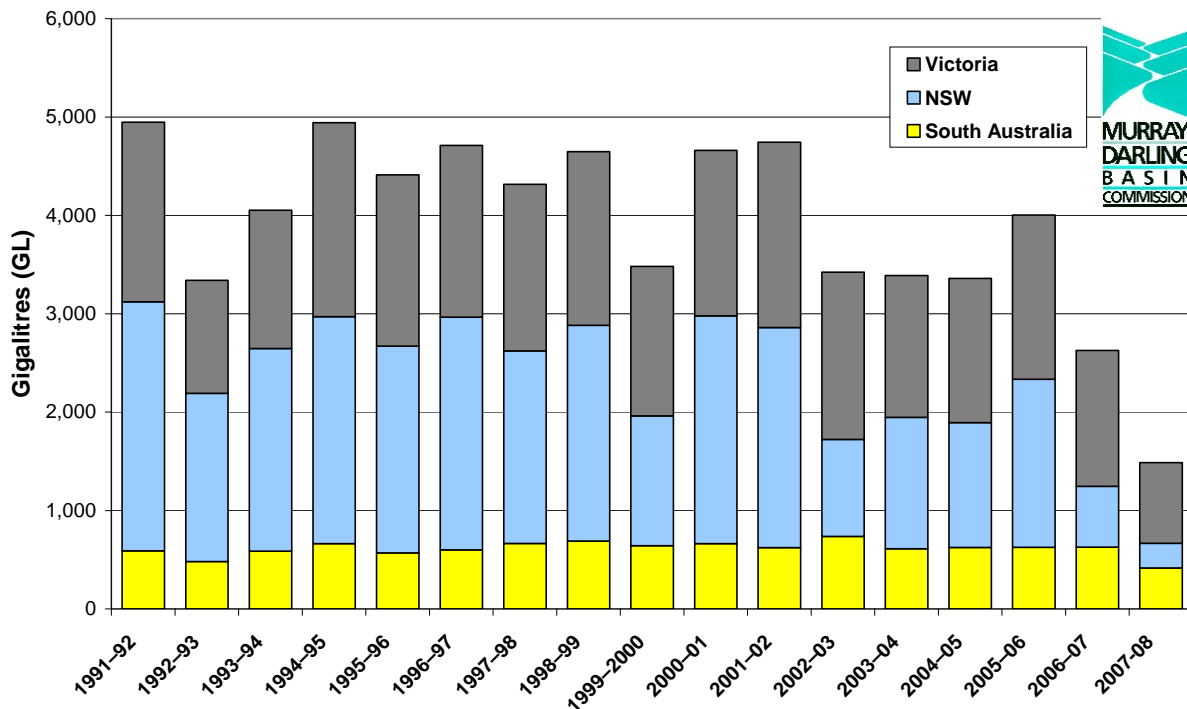
In 2007-08, small volumes of environmental water were delivered to high priority sites along the Murray, in particular to replenish critical drought refuges and protect threatened species. The total volume of Living Murray Environmental water used in 2007-08 was about 17 GL or about 1 % of the total water consumed.

Table 1. State diversions for the Murray system (including lower Darling, and not adjusted for trade)

	Diversions 2006-07 (GL)	Diversions 2007-08 (GL)	Average Diversion 1997- 2008 (GL)
NSW	615	250	1470
VIC	1380	820	1550
SA	625	415	630

Note; 2007-08 data are preliminary estimates only.

Figure 4. State diversions for the Murray system (including lower Darling, and not adjusted for trade)



THE CURRENT SITUATION

This year, the Basin has experienced its 4th driest autumn on record. As a result, Murray system inflows in autumn approached the record low levels experienced in the previous year. The dry weather has continued in the southern half of the Basin and the monthly inflows for June 2008 set a new record low of only 95 GL, compared with 220 GL in June 2007 and a long term average of 680 GL. Similarly, inflows into Snowy Hydro's storages in the Snowy Mountains remain extremely low and their storage levels are similar to the record lows observed at this time last year.

OUTLOOK FOR 2008-09

Figure 5 illustrates the total commitments and current water available at the start of 2008-09. Approximately 2,380 GL is required to meet critical needs, individual carryover, and the river and storage losses that would occur while supplying this water. Just over half of this volume is currently in storage. An additional 900 GL is virtually assured from system inflows during the year, even under a 'worst case' dry scenario. Under this dry scenario, the remaining 190 GL would have to be supplied from contingency measures which include water stored in Menindee Lakes, wetland savings and the drawdown of weir pools at the end of the season.

The prospects for irrigation allocations in 2008-09 are entirely dependent on an improvement in system inflows during winter and spring, which is the critical period for runoff in the upper Murray and its tributaries. The current situation is reflected in the opening State irrigation allocations for 2008-09 which are between 0 and 2 %. Further details about allocations and access to carryover are available on the following State water authority websites:

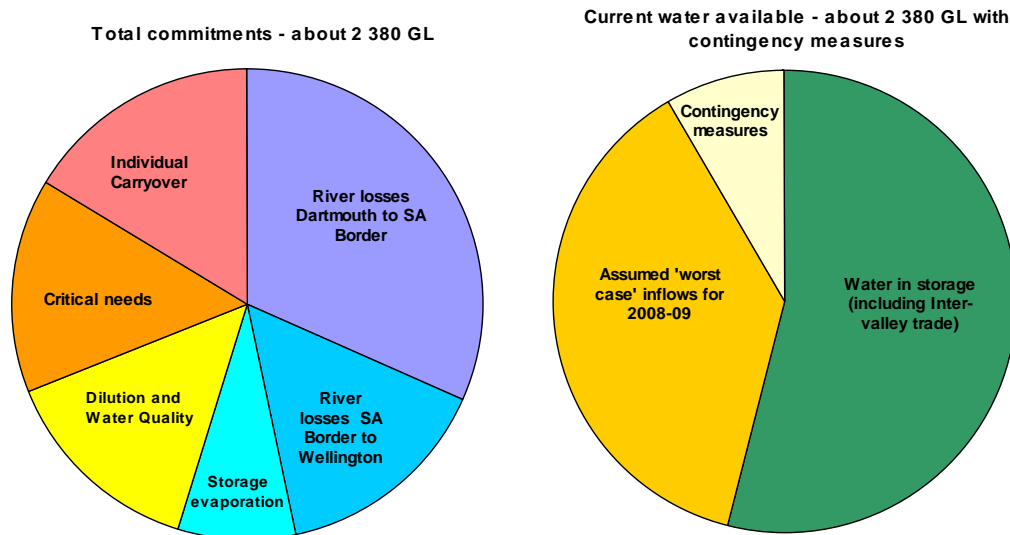
NSW; www.naturalresources.nsw.gov.au/water/state_mm_murr_water_quality.shtml#alloc

VIC; www.g-mwater.com.au/water-resources/allocations/current.asp

SA; www.dwlbc.sa.gov.au/media.html

The most recent seasonal climate outlook issued by the Bureau of Meteorology shows a shift in the odds favouring drier than average conditions across the Murray-Darling Basin from July to September. The chances of exceeding median rainfall are only about 40 % for the high yielding catchments in the Victorian Alps and Snowy Mountains, and only 30 to 40 % over South Australia, western Victoria and south-western New South Wales. Further information is available at, http://www.bom.gov.au/climate/ahead/rain_ahead.shtml

Figure 5. Murray system commitments and current water available



Overall, the drought in the Murray-Darling Basin is getting worse. The chance that upper Murray inflows will be above average for the remainder of winter and spring, is very low.

The outlook for 2008-09 also presents very serious challenges for the environment. Some wetlands along the Murray remain disconnected, and large areas of floodplain have not been flooded since 1993. This current period without significant flooding is considerably longer than any other dry period experienced in the last 117 years for which records exist.

Lower Lakes

The condition of the Coorong and Lower Lakes in South Australia remains very serious. Large areas of mudflats have been exposed in Lake Albert and there is a significant risk of acidification. Pumping of water from Lake Alexandrina commenced in early May 2008 to maintain Lake Albert at its current level and prevent further exposure of sulphidic sediments. The cooler winter weather has reduced evaporative losses and led to a temporary stabilization of water levels. However, if the weather remains dry and Murray inflows remain low, the water level is expected to continue falling during spring and summer. Further management options for the Lower Lakes are being carefully considered for the 2008-09 season and beyond, and will respond to actual lake levels and system inflows.

SYSTEM-WIDE STRATEGY FOR 2008-09

Due to the protracted water scarcity in the southern half of the Basin, Murray operations over the last two seasons have concentrated on maximizing water availability, and reducing evaporation and transmission losses along the river system. This strategy is likely to continue in 2008-09 and will include:

- reduced minimum flow targets,
- the use of weir pools to capture and re-regulate tributary inflows, and
- continuation of wetland disconnections to reduce evaporative losses.

On a more positive note, the MDBC has recently announced that trade across the Barmah Choke will be permitted until the end of October 2008. This will enable water entitlement holders above the Choke to sell their allocations to downstream users, which will assist them in managing their irrigation businesses.

Finally, the Murray-Darling Basin Commission continues to undertake contingency planning and implement appropriate measures in consultation with relevant State and Australian government agencies.

ADDITIONAL INFORMATION

MDBC will provide further drought updates in the coming months. Additional information is available at www.mdbc.gov.au also from the relevant Australian and State Government Agencies. For media interviews with MDBC personnel, please contact Sam Leone, MDBC Media Liaison, telephone 0407 006 332.