

# REPORT FOR THE WEEK ENDING

Wednesday, 27 November 2002

Our Ref: MDBC:269 :dc:bwh

29 November, 2002



## ***Little response from recent rainfall***

Welcome rainfall was recorded mainly across the southern areas of the Murray-Darling Basin with highest falls between 25 and 50 mm about the ranges. Falls in southern NSW were generally between 5 and 10 mm. As expected, streamflow response was only minor with flow rises of only 400 and 700 ML/day in the Ovens and Kiewa Rivers respectively. However, the change in conditions has temporarily reduced losses along the River Murray, and temporarily reduced irrigation demand. As a result, the rate of transfer of water from Hume Reservoir to Lake Victoria has been temporarily increased.

## ***Upper Murray storage***

Storage in Hume Reservoir has been drawn down by 56 GL to 488 GL (16% of capacity). Total inflow to Hume averaged about 12 000 ML/day, which included about 9 500 ML/day from Dartmouth release, about 1 300 ML/day from the Snowy Mountains Scheme, and about 1 200 ML/day from unregulated inflow. The rate of drawdown of Hume will be reduced in mid December when the rate of transfer of water to Lake Victoria is reduced.

## ***System operation under continuing drought***

River operation this season is unprecedented because of the combined effect of low storage available at the start of the season, the distribution of storage in the system, and the lack of Commission water in Menindee Lakes. Under continuing very dry conditions, storage in Hume is forecast to be drawn down to very low levels in summer and autumn 2003, and all users of Lake Hume need to give due regard to the lower than normal operating levels (see attached Media Release). Lake Victoria is also forecast to be drawn down to very low levels at that time – further information is available in a short report entitled ‘River Murray System – Update’ on the Commission’s website ([www.mdbc.gov.au](http://www.mdbc.gov.au)).

## ***Mid Murray operation***

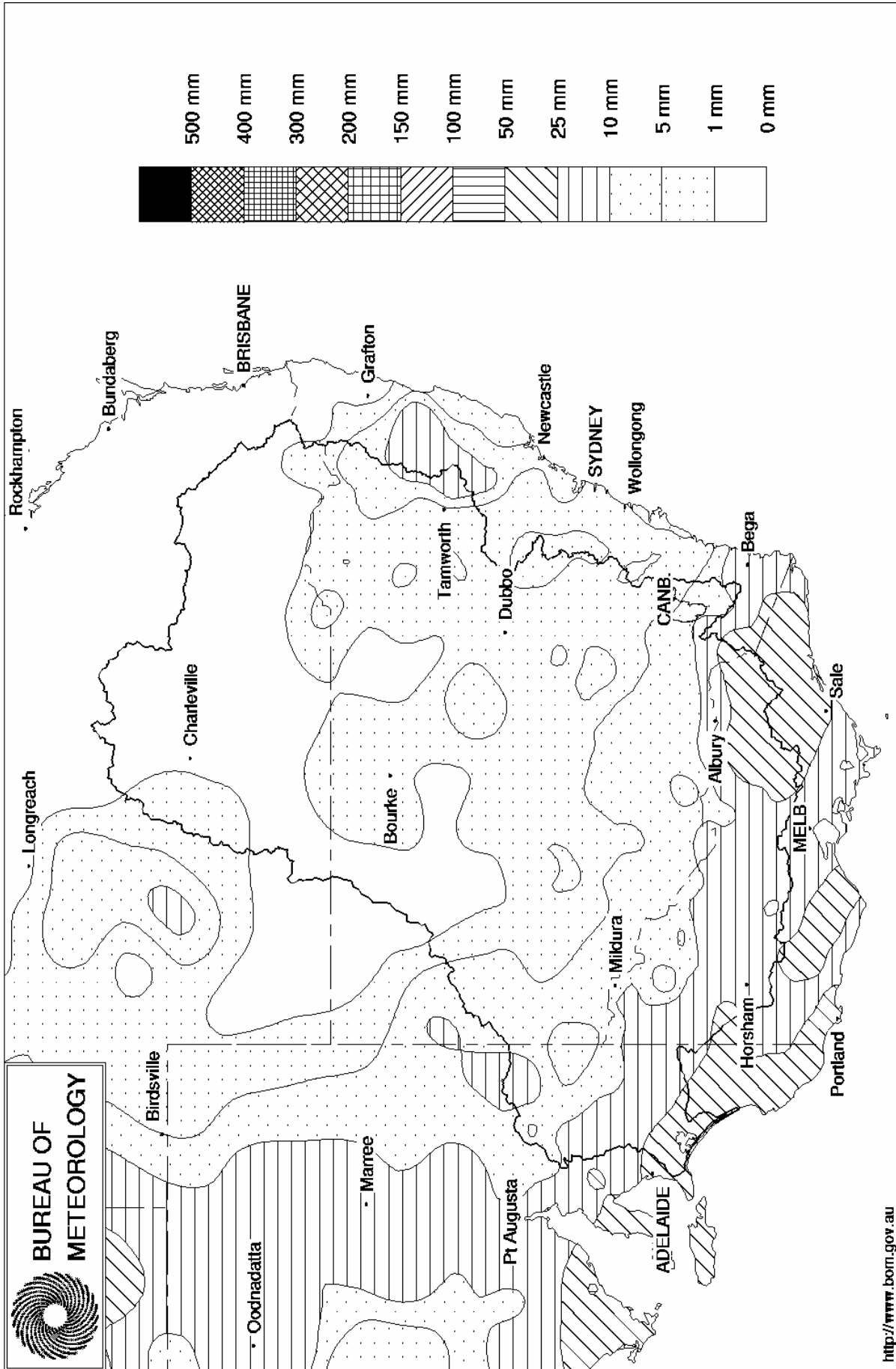
Combined diversion from Lake Mulwala via Mulwala Canal and the Yarrawonga Main Channel was reduced by 400 to 5 700 ML/day or 44 % of capacity. Release from Yarrawonga Weir is scheduled to be maintained at 15 000 ML/day until mid December and then to be gradually reduced to normal regulated capacity of about 10 300 ML/day with regulators in the Barmah forest to be subsequently closed to allow the forest to dry out during the summer period.

The refilling of internal storages and a reduction in internal demand with the Torrumbarry Irrigation System has resulted in diversion to National Channel being reduced from 3 500 to 3 300 ML/day with further reductions expected by 29 November. Release from Torrumbarry Weir has been increased from 7 800 ML/day to 8 600 ML/day – this has been in response to the arrival of increased flow from Barmah following the previous increase in Yarrawonga flow to 15 000 ML/day in early November, and the recent reduction in diversion to National Channel. Torrumbarry flow is forecast to further increase to about 9 300 ML/day next week, and will assist with the rate of transfer of water to Lake Victoria.

DAVID DOLE  
General Manager

# Murray Darling Rainfall Analysis (mm) Week Ending 27th November 2002

Product of the National Climate Centre



# MEDIA RELEASE

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**Tuesday, 26 November 2002**

## **Low levels in Lake Hume likely this summer**



River Murray Water and the NSW Department of Land and Water Conservation (DLWC), announced today that Lake Hume is likely to be drawn down to very low levels in summer and autumn this season due to ongoing drought conditions.

The Murray-Darling system is in a drought which we have not experienced as a community for 20 years. The drought is having a severe impact on water users in the River Murray system, and the Commission is working with Commonwealth and State Governments to manage its water supply system to ensure the least disruption.

As a result of the extremely dry conditions and low inflows since last autumn, Hume Reservoir storage is currently 16% of capacity. This is extremely low for this time of year. During November the lake is normally above 55% of capacity.

If the extreme dry conditions continue, by late summer/early autumn 2003 storage in Lake Hume could fall to less than 2% of capacity, the lowest the lake has been drawn down to since April 1968 when storage fell to 0.9 %.

Mr David Dole, General Manager of River Murray Water, said that while depths could be as low as about 9 metres above the old river bed at the Dam wall, the water surface will be largely confined to the original river course with shallow flooding across the original floodplain upstream creating potential water quality concerns and also the need for extra caution in all forms of boating activity.

State Authorities have already indicated that organised high speed boating events on the lake will be unable to take place until such time as the outlook for future water levels improves.

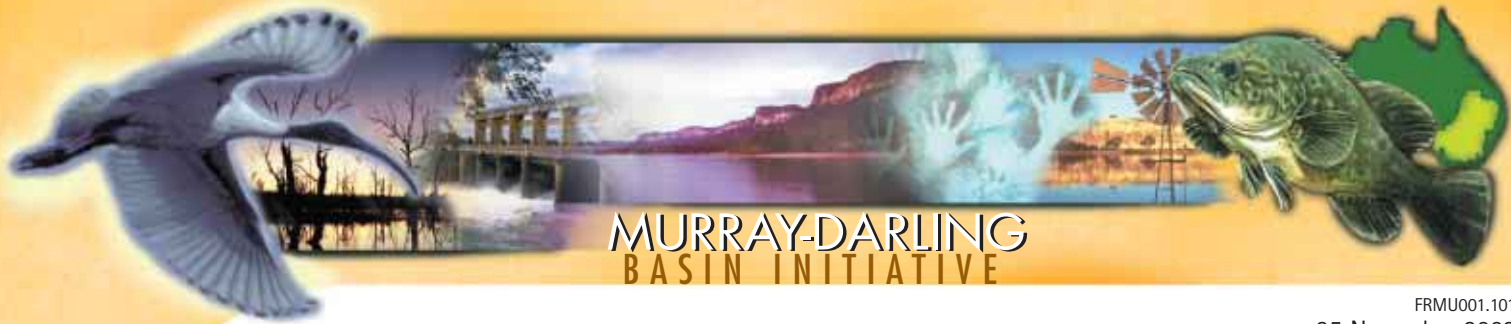
Mr Dole said that there would still be opportunities for recreational activities at Lake Hume but that all lake users would have to give due regard to the lower than normal operating levels.

State Authorities will be monitoring activities on the lake with a view to possibly introducing boat speed limits in early 2003 in the interests of public safety.

There is also a possibility of blue-green algal blooms occurring on the lake in the hotter months, reducing water quality in the lake. Any outbreaks should be reported to the Albury office of the Department of Land and Water Conservation on 02 6041 6777.

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## MURRAY-DARLING BASIN INITIATIVE

FRMU001.101  
25 November 2002

# RIVER MURRAY SYSTEM – UPDATE

## PRESIDENT'S MESSAGE

The Murray-Darling system is in a drought, the scale of which we have not experienced as a community for 20 years. This brief document provides an overview of the predicted storage situation of the River Murray System.

The drought is having a severe impact on both dryland and irrigation farmers, and the Commission is working with Commonwealth and State Governments to manage its water supply system to ensure the least disruption.

The information below indicates the likely levels our major storages will reach if drought conditions continue until the Autumn of 2003. While we have adequate water to meet the announced allocations to irrigators in all States and to meet the South Australian entitlement over the full year, we will be operating our storages at low levels rarely before experienced. After the 1982 drought new valves were installed in Hume Dam to deal with just such an event. State Water Agencies are providing you with specific information about the annual allocations and their management and that information is not repeated in this document.

What is important to note is that Hume Reservoir, Lake Victoria, Menindee Lakes and the Lower Lakes (Lakes Alexandrina and Albert) will all be at low levels at various times over the next 6 months. This will require specific management at each site.

The Commission will continue to provide updates as required and if there is further information that we can assist with please do not hesitate to contact us on 02 6279 0100.

ROY GREEN (Dr)

President Murray-Darling Basin Commission

## SEVERE DROUGHT

The 2002 drought is the most severe since that of 1982/83. Tributary inflows to the Murray have been very low in 2002, but not as low as in 1982/83. River operations this season are unprecedented because of:

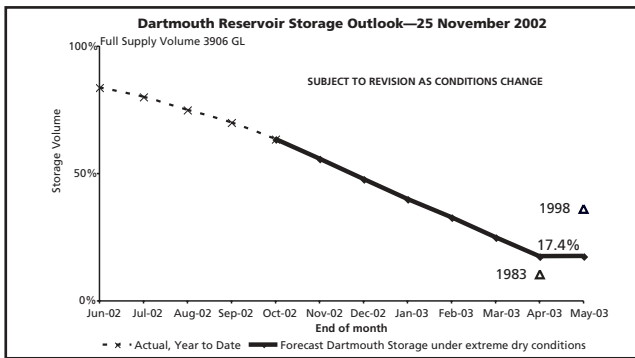
- low storage levels at the start of the season;
- high demand for consumptive use;
- the distribution of water stored in the River Murray system; and
- the Menindee Lakes storage is below the level defined as available to the River Murray system.

## WHERE WATER IS STORED

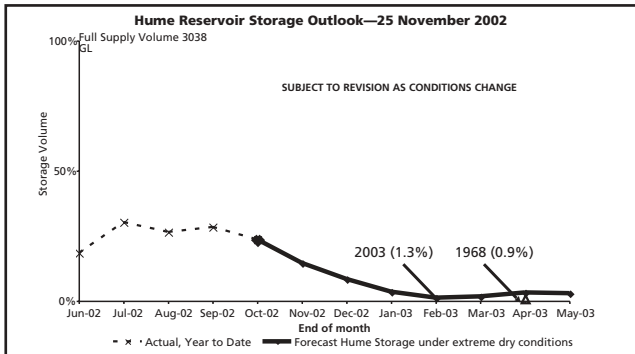
This season the major part of the Murray's water is stored in Dartmouth Reservoir. This dam was built as a drought reserve, and is currently fulfilling this purpose. Water released from Dartmouth this season is the main source of supply of water along the full length of the River Murray. Transfers from Dartmouth to Hume Reservoir started very early in the season in June 2002. Transfers from Hume to Lake Victoria also began very early (July) with the aim of ensuring that South Australia's water entitlement can be met this season. Releases from the Snowy Mountains Scheme will be at normal levels of just over 1 000 000 megalitres for the season.

All of the Commission's storages will be drawn down to low levels at the end of the season if it stays dry. The plots on the next page illustrate this.

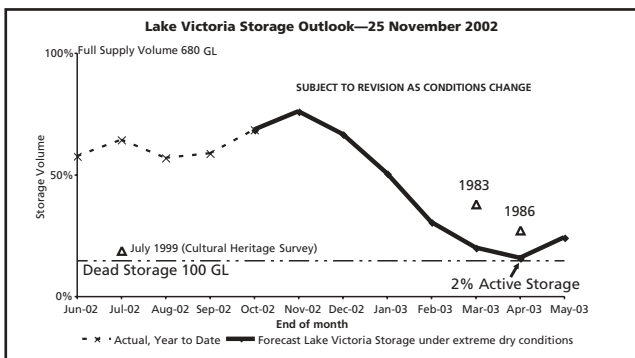
Storage in Menindee Lakes on the lower Darling River is very low (about 10%). This water is being managed by New South Wales to conserve supplies for the lower Darling River and Broken Hill. There is currently no water available from Menindee Lakes to supplement the River Murray.



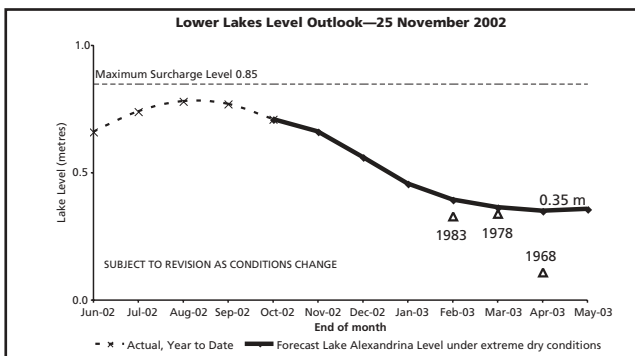
### 1. Dartmouth Reservoir



### 2. Hume Reservoir



### 3. Lake Victoria



### 4. Lower Lakes

## WATER SUPPLIES IN 2002/03

Recent dry years have led to water allocation levels in New South Wales and Victoria in 2002/03 being the lowest ever experienced with the current level of irrigation development. South Australia has also been on their minimum entitlement flows for this season.

Storage levels in Hume Reservoir and Lake Victoria are forecast to fall to low levels early next year (as shown in the plots on this page).

There is some potential that short-term peaks in demand over the summer may result in the need to redistribute that demand so we can maintain water supply to all users.

The Commission is working closely with the States to determine how to best manage this should it become necessary.

## WATER QUALITY

As in 1982/83, the salinity of water in the Murray is very low along most of its length except at the bottom end of the river. There has been no flow to the sea for a year and the salinity of the lower lakes has risen to high levels restricting irrigation at some locations.

River salinity is expected to remain low for most of the river if the drought continues. Salinity mitigation schemes are contributing significantly to this outcome, along with generally reduced saline groundwater influxes to the river during times of drought. The salinity "hotspots" will continue to be the Lower Lakes and the Darling River below Menindee.

An increased potential for blue-green algal problems exists within the River Murray System this season because of low flow, clear water and warm water temperatures. State Agencies are closely monitoring the situation and have contingency plans in the event of blue-green algal blooms.

## OUTLOOK FOR THE NEXT SEASON

Further information on allocations for the next irrigation season will be provided in early 2003.

## FURTHER INFORMATION

Murray-Darling Basin Commission web site (includes the River Murray Water Weekly Report containing more detailed information) [www.mdbc.gov.au](http://www.mdbc.gov.au) or phone 02 6279 0100

Drought Hotline, phone 1800 814 647, [www.affa.gov.au](http://www.affa.gov.au)

Bureau of Meteorology, phone 03 9669 4082, [www.bom.gov.au](http://www.bom.gov.au)

**Our values:** courage; inclusiveness; commitment; respect & honesty; flexibility; practicability; mutual obligation.

**Our principles:** integration; accountability; transparency; effectiveness; efficiency; full accounting; informed decision-making; learning approach.

## Week ending Wednesday 27 Nov 2002

### Water in Storage

MDBC Storages	Full Supply Level (m AHD)	Full Supply Volume (GL)	Current Storage Level (m AHD)	Current Storage		Dead Storage (GL)	Active Storage (GL)	Change in Storage for the week (GL)
				(GL)	%			
Dartmouth Reservoir	486.00	3 906	456.23	2 229	57%	80	2 149	-64
Hume Reservoir	192.00	3 038	173.13	488	16%	30	458	-56
Lake Victoria	27.00	680	25.65	532	78%	100	432	+21
Menindee Lakes		1 682 *		173	10%	640 #	0	-8
<b>Total</b>		<b>9 306</b>		<b>3 421</b>	<b>37%</b>	<b>850</b>	<b>3 038</b>	<b>-106</b>

\* Menindee surcharge capacity 1999 GL

% of Total Active MDBC Storage = **36%**

# NSW Menindee Lakes Reserve

### Major State Storages

Burrinjuck Reservoir	1 026		294	29%	3	291	-2
Blowering Reservoir	1 631		218	13%	24	194	+19
Eildon Reservoir	3 390		680	20%	100	580	-17

### Snowy Mountains Scheme

Snowy diversions for week ending 26-Nov-2002

Storage (GL)	Current storage	Weekly change	Diversion	This week	From 1 May 2002
Lake Eucumbene - Total	3 172	-4	Snowy-Murray	+6	247
Snowy-Murray Component	1 551	-	Tooma-Tumut	+0	180
Target Storage	1 450		Nett Diversion	6.0	67
			Murray 1 Release	+10	488

### Major Diversions from Murray and Lower Darling (GL)

New South Wales	This week	From 1 July 2002
Murray Irrig. Ltd (Net)	7.0	312.0
Wakool System loss	2.4	20.2
Western Murray Irrig.	0.4	9.6
Licensed Pumps	3.8	97.9
Lower Darling	5.1	75.3
<b>TOTAL</b>	<b>18.7</b>	<b>515.0</b>

Victoria	This week	From 1 July 2002
Yarrowonga Main Channel (net)	12.0	226
Torrumbarry System + Nyah (net)	22.7	437
Sunraysia Pumped Districts	2.9	55
Licensed pumps - GMW (Nyah+u/s)	2.0	26
Licensed pumps - SRW	5.8	69
<b>TOTAL</b>	<b>45.4</b>	<b>813</b>

### Flow to South Australia (GL)

Entitlement this month	180	(6 000 ML/day)
Flow this week	41.7	
Flow so far this month	162	
Flow last month	171	

### Salinity (EC)

(microsiemens/cm @ 25° C)

	Current	Average over the last week	Average since 1 August 2002
Swan Hill	60	60	90
Euston	80	80	140
Red Cliffs	90	90	160
Merbein	100	100	170
Burtundy (Darling)	1 030	1 020	870
Lock 9	110	120	220
Lake Victoria	290	240	340
Berri	270	280	390
Waikerie	-	500	570
Morgan	530	550	600
Mannum	620	620	650
Murray Bridge	700	710	730
Milang (Lake Alex.)	980	1 000	980
Poltalloch (Lake Alex.)	1 010	1 020	1 100
Meningie (Lake Alb.)	1 390	1 470	1 470
Goolwa Barrages	2 320	2 280	3 390



Week ending Wednesday 27 Nov 2002

### 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	-	-	-	2 180	F	1 930	1 910
Jingellic	4.0	1.45	207.97	3 000	R	3 250	2 630
Tallandoon ( Mitta Mitta River )	4.2	3.17	220.06	9 830	F	9 950	10 040
Heywoods	5.5	3.34	156.97	19 030	F	19 610	22 060
Doctors Point	5.5	3.47	151.94	19 900	F	20 200	22 200
Albury	4.3	2.50	149.94	-	-	-	-
Corowa	7.0	3.73	129.75	21 000	S	21 840	22 400
Yarrawonga Weir (d/s)	6.4	2.36	117.40	15 000	S	15 000	15 000
Tocumwal	6.4	2.93	106.77	15 010	S	15 010	14 860
Torrumbarry Weir (d/s)	7.3	2.78	81.33	8 630	R	8 140	7 800
Swan Hill	4.5	1.50	64.42	7 630	R	7 390	7 230
Wakool Junction	8.8	3.69	52.81	10 710	R	10 550	10 640
Euston Weir (d/s)	8.8	2.22	44.06	11 500	S	11 410	11 330
Mildura Weir (d/s)	-	-	31.14	8 640	F	8 510	8 070
Wentworth Weir (d/s)	7.3	3.17	27.93	9 320	R	9 370	8 590
Rufus Junction	-	3.28	17.91	5 440	F	5 530	5 530
Blanchetown (Lock 1 d/s)	-	-	-	3 790	R	3 550	3 240
<b>Tributaries</b>							
Kiewa at Bandiana	2.7	0.98	154.21	600	R	330	320
Ovens at Wangaratta	11.9	7.75	145.43	305	R	290	300
Goulburn at McCoys Bridge	9.0	1.21	92.63	450	R	380	360
Edward at Stevens Weir (d/s)	-	-	-	2 900	F	2 910	2 740
Edward at Liewah	-	3.03	58.41	2 780	R	2 740	2 710
Wakool at Stoney Crossing	-	0.79	55.28	1 260	R	1 340	1 550
Murrumbidgee at Balranald	5.0	0.53	56.49	250	F	440	340
Barwon at Mungindi	-	3.13	-	0	F	50	50
Darling at Bourke	-	3.97	-	100	F	100	10
Darling at Burtundy Rocks	-	0.63	-	7	F	20	40

<b>Natural Inflow to Hume</b> (ie pre Dartmouth & Snowy Mountains scheme)	1 550	1 870
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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
Yarrawonga	124.90	-0.17	-	No. 7 Rufus River	22.10	+0.10	+0.98
No 26 Torrumbarry	86.05	-0.01	-	No. 6 Murtho	19.25	+0.01	+0.08
No. 15 Euston	47.60	+0.00	-	No. 5 Renmark	16.30	+0.03	+0.15
No. 11 Mildura	34.40	+0.03	+0.34	No. 4 Bookpurnong	13.20	+0.02	+0.60
No. 10 Wentworth	30.80	+0.01	+0.53	No.3 Overland Corner	9.80	+0.05	+0.19
No. 9 Kulnine	27.40	+0.03	+0.03	No. 2 Waikerie	6.10	+0.08	+0.15
No. 8 Wangumma	24.60	+0.00	+0.17	No 1. Blanchetown	3.20	+0.05	-0.04

Murrumbidgee	FSL (m AHD)	relation to FSL	d/s gauge ht.		Flow (ML/day)
			local (m)	(m AHD)	
No. 7 Maude	75.40	-0.39	0.5	69.85	211
No. 5 Redbank	66.90	+0.03	0.12	61.42	244

### Barrages

FSL = 0.75 m AHD

	Openings	Level	Status
Goolwa	128 openings	0.68	All closed
Mundoo	26 openings	0.68	All closed
Boundary Creek	6 openings	-	All closed
Ewe Island	111 gates	-	All closed
Tauwitchere	322 gates	0.72	All closed

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

