

# REPORT FOR THE WEEK ENDING

Wednesday, 12 March 2003

Our Ref: MDBC:269 :brc

14 March, 2003



## ***Rainfall and Streamflow***

Rainfall was limited to light falls over the western slopes of the Great Divide this week. Unregulated streamflows in the Upper Murray and tributaries remain extremely low.

February rainfall events in the northern New South Wales and southern Queensland produced limited inflows to the Darling River. These flows have been sufficient to overcome large initial losses and refill town weir pools at Bourke and further upstream. Flows are expected downstream of Bourke Weir next week. Whilst the NSW Department of Land and Water Conservation has estimated that there is sufficient flow to reach Wilcannia, inflows to Menindee Lakes are expected to be minimal without significant further rain.

## ***System Operation***

Victorian and NSW irrigation demand has been less than earlier predictions over recent weeks. Whilst diversions at major offtakes (particularly Mulwala Canal) are expected to increase in coming weeks, current short range advance orders for irrigation water show a slower rate of increase than predicted. In addition, system transmission and storage evaporation losses have been lower than allowances owing to slightly cooler conditions. As a result, Hume storage volume has continued to increase to 260 GL (8.5% of capacity) – an increase of just over 100 GL since the end of January. However, Hume storage is expected to commence falling once again this week as the reduction in release from Dartmouth takes effect.

Dartmouth release is currently being reduced and flow at Tallandoon will fall to about 5 000 ML/day early next week. The rate of reduction in flow is very slow in order to minimise the risk of further erosion in the Mitta Mitta River. It is now likely that further reductions to about 2 500 ML/day at Tallandoon will be made beginning early next week.

Diversion to Mulwala Canal has increased to about 4 000 ML/day since early March as a result of the early delivery of additional supplies to Murray Irrigation Limited. This additional water is being provided as an advance of part of next seasons NSW entitlement from the Snowy Mountains Scheme.



***Contrasting Lakebeds #1. Lake Hume bed about 3 to 4 km upstream of the Dam on the Victorian side of the Murray Arm. This photo shows cracking silts on an area of the original floodplain not exposed since 1968.***

***Photo: B Campbell, RMW 12 February 2003***



***Contrasting Lakebeds #2. Lake Victoria Southern Lakebed, looking towards Nanya and Gecko Islands. Foreground shows Spiny Mudgrass response to reduced grazing pressure, and enhanced drying cycles at Lake Victoria incorporated in the Lake Victoria Operating Strategy. In the background is healthy Phragmites and River Red Gum on the islands.***

***This photograph shows that whilst the majority of the River Murray system has been severely affected by drought, river regulation has produced a few isolated pockets where there are no visible drought effects.***

***Photo: N Garland, RMW 25 February 2003***

### ***Mid Murray Flows***

Release from Yarrowonga Weir has been at or below 7 500 ML/day since 1 March. Flow in this reach is usually at or near channel capacity through Barmah Choke (approximately 10 500 ML/day at Yarrowonga)

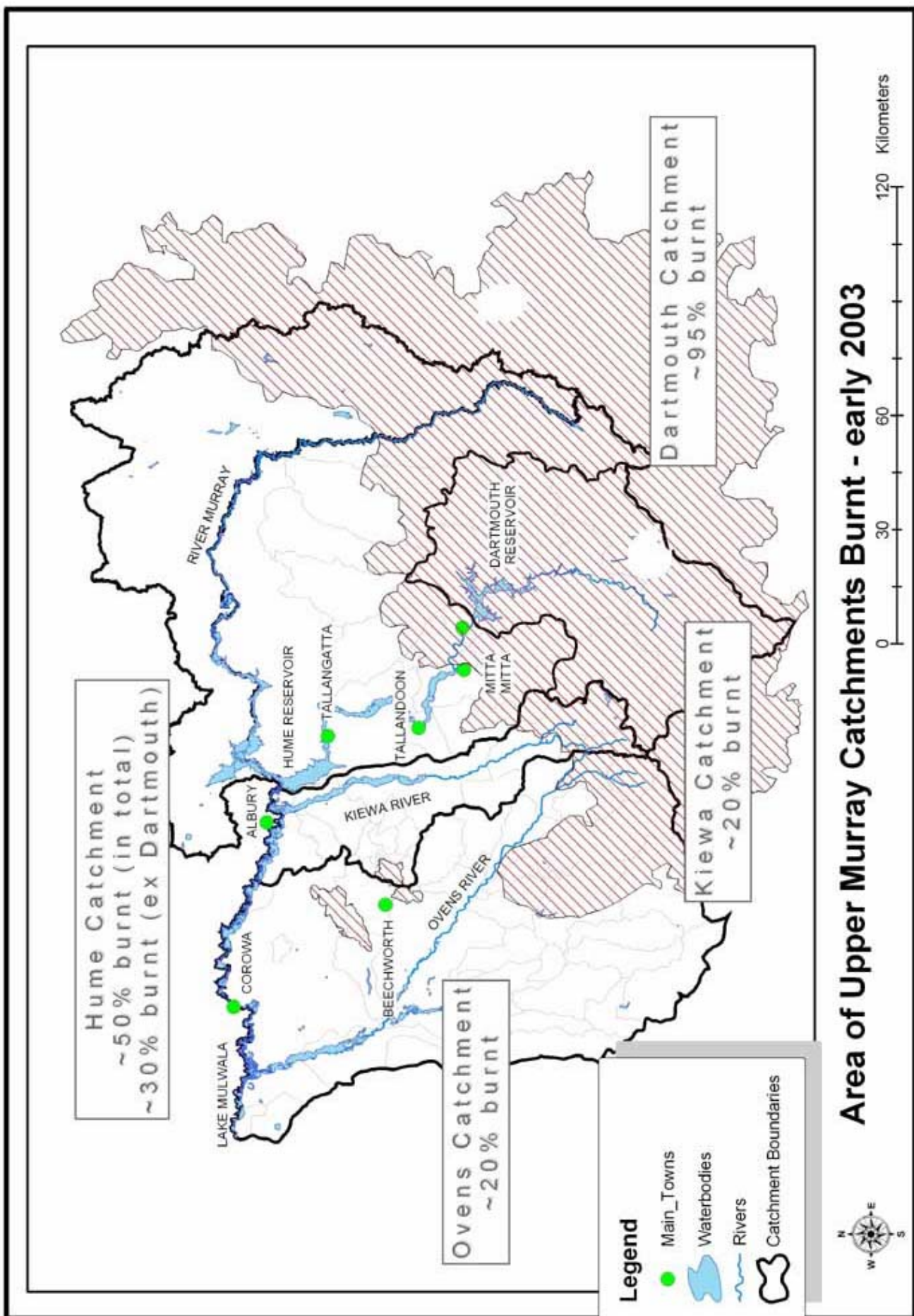
during late February and early March, which corresponds to the peak of the irrigation season. However, due to extremely low water availability this season, the release requirements from Yarrowonga Weir to meet downstream irrigation demand are significantly less than in a typical season. In addition, the transfer of additional water from Hume to Lake Victoria ceased in late February, further reducing the required flow downstream of Yarrowonga Weir. Based on current projections, release from Yarrowonga Weir is expected to average just under 7 000 ML/day during March. This is the lowest average flow downstream of Yarrowonga in March over the last 25 years, and is a direct consequence of the severe drought conditions and low water allocations that continue to influence the River Murray system.

Downstream of Torrumbarry, current flow rates are similar to the rates experienced in typical years. Releases from Torrumbarry Weir will continue to average about 3 200 to 3 500 ML/day over coming weeks unless there is significant rainfall. At Euston Weir, flow (currently about 6 000 ML/day) is now receding following the passage of rejected irrigation orders as a result of rain in late February, and will continue to recede to about 3 300 ML/day next week, then level out. At Lake Victoria, water levels have been steady since late February, but are expected to begin falling once again towards the end of next week as upstream River Murray flow recedes.

### ***Areas Affected by Bushfire***

As noted in last week's report, significant areas of the upper Murray have been affected by bushfire and the attached map shows the extent of those areas burnt.

DAVID DOLE  
General Manager



Hume Catchment  
~50% burnt (in total)  
~30% burnt (ex Dartmouth)

Ovens Catchment  
~20% burnt

Kiewa Catchment  
~20% burnt

Dartmouth Catchment  
~95% burnt

**Legend**

- Main\_Towns
- Waterbodies
- Rivers
- Catchment Boundaries

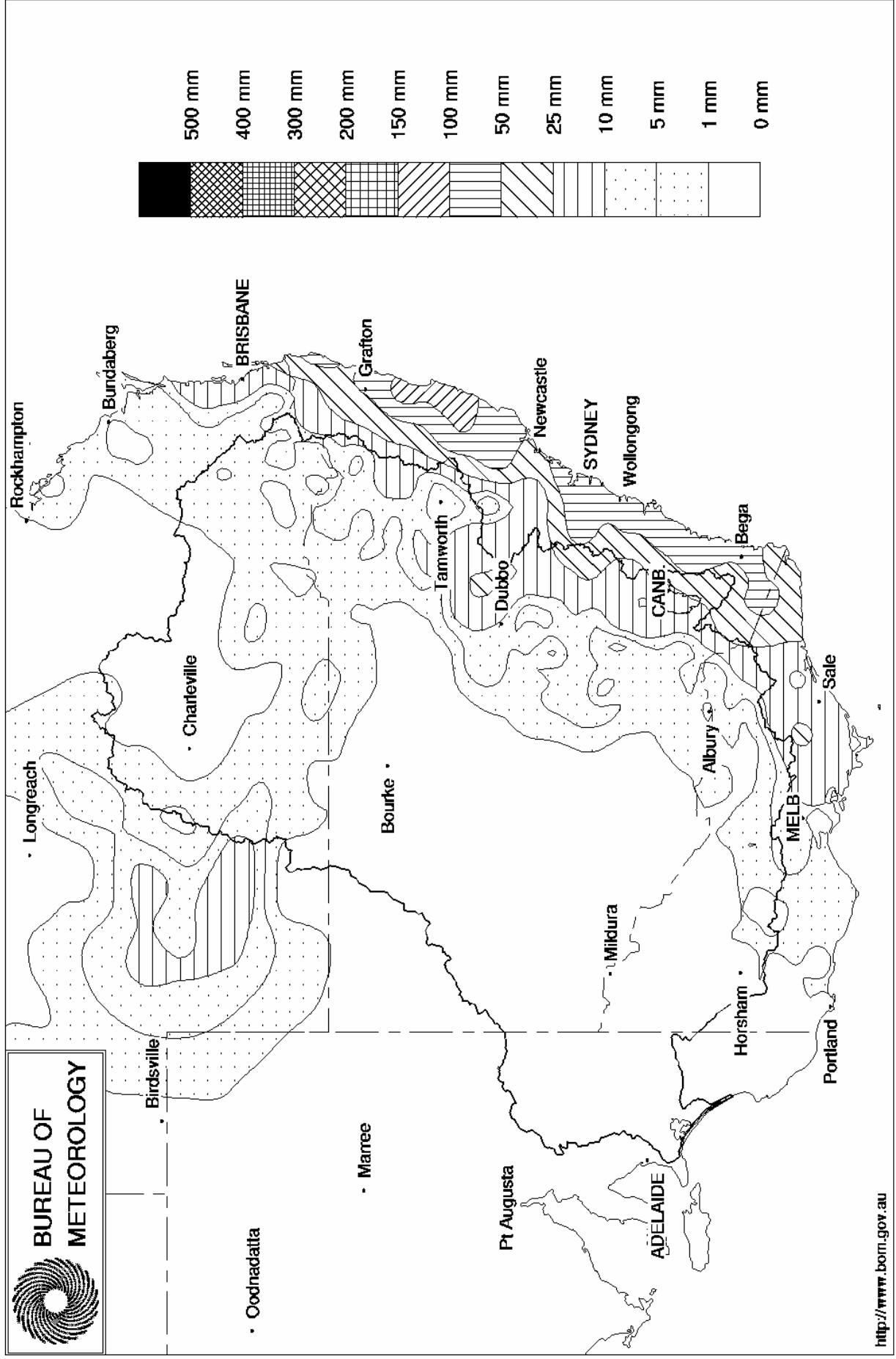


**Area of Upper Murray Catchments Burnt - early 2003**



# Murray Darling Rainfall Analysis (mm) Week Ending 12th March 2003

Product of the National Climate Centre



**Week ending Wednesday 12 Mar 2003**

**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	430.60	1 215	31%	80	1 135	-57
Hume Reservoir	192.00	3 038	169.73	260	9%	30	230	+22
Lake Victoria	27.00	680	24.60	422	62%	100	322	+9
Menindee Lakes		1 682 *		69**	4%	640 #	0	-2**
<b>Total</b>		<b>9 306</b>		<b>1 966</b>	<b>21%</b>	<b>850</b>	<b>1 686</b>	<b>-27</b>

\* Menindee surcharge capacity 1999 GL

% of Total Active MDBC Storage = **20%**

# NSW Menindee Lakes Reserve

\*\*Capacity tables used by RMW and DLWC are different and are currently under review.

Discrepancies exist between DLWC and RMW figures.

**Major State Storages**

Burrinjuck Reservoir	1 026		87	8%	3	84	+2
Blowering Reservoir	1 631		52	3%	24	28	-31
Eildon Reservoir	3 390		365	11%	100	265	-11

**Snowy Mountains Scheme**

Snowy diversions for week ending 11-Mar-2003

Storage (GL)	Current storage	Weekly change	Diversions	This week	From 1 May 2002
Lake Eucumbene - Total	2 509	-50	Snowy-Murray	+41	661
Snowy-Murray Component	1 208	-	Tooma-Tumut	+3	201
Target Storage	1 410		Nett Diversion	38.7	460
			Murray 1 Release	+44	875

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

New South Wales	This week	From 1 July 2002
Murray Irrig. Ltd (Net)	23.4	391.3
Wakool System loss	1.0	41.0
Western Murray Irrig.	0.7	24.9
Licensed Pumps	4.4	170.7
Lower Darling	2.2	113.6
<b>TOTAL</b>	<b>31.7</b>	<b>741.6</b>

Victoria	This week	From 1 July 2002
Yarrowonga Main Channel (net)	11.1	412
Torrumbarry System + Nyah (net)	16.6	713
Sunraysia Pumped Districts	2.8	134
Licensed pumps - GMW (Nyah+u/s)	1.9	63
Licensed pumps - SRW	4.5	155
<b>TOTAL</b>	<b>36.8</b>	<b>1 477</b>

**Flow to South Australia (GL)**

Entitlement this month	186	
Flow this week	41.3	(5 900 ML/day)
Flow so far this month	72	
Flow last month	194	

**Salinity (EC)**

(microsiemens/cm @ 25° C)

	Current	Average over the last week	Average since 1 August 2002
Swan Hill	80	80	80
Euston	100	90	120
Red Cliffs	100	90	130
Merbein	90	100	140
Burtundy (Darling)	1 520	1 690	1 120
Lock 9	130	130	170
Lake Victoria	190	220	300
Berri	270	280	330
Waikerie	360	360	420
Morgan	360	360	500
Mannum	410	390	600
Murray Bridge	490	470	680
Milang (Lake Alex.)	1 210	1 200	1 150
Poltalloch (Lake Alex.)	1 170	1 210	1 150
Meningie (Lake Alb.)	1 650	1 780	1 600
Goolwa Barrages	2 940	3 130	3 250



## Week ending Wednesday 12 Mar 2003

### River Levels and Flows

	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)				
<b>River Murray</b>							
Khancoban	-	-	-	7 290	F	7 240	5 320
Jingellic	4.0	2.02	208.54	7 630	F	7 380	5 390
Tallandoon ( Mitta Mitta River )	4.2	2.81	219.70	7 470	F	8 410	10 040
Heywoods	5.5	2.83	156.46	13 550	S	11 980	9 740
Doctors Point	5.5	2.94	151.41	13 100	S	11 580	9 400
Albury	4.3	1.91	149.35	-	-	-	-
Corowa	7.0	2.80	128.82	13 900	R	11 470	10 530
Yarrowonga Weir (d/s)	6.4	1.35	116.39	7 170	R	6 780	7 490
Tocumwal	6.4	1.74	105.58	6 740	S	6 860	7 990
Torrumbarry Weir (d/s)	7.3	1.28	79.83	3 210	S	3 750	6 160
Swan Hill	4.5	0.84	63.76	3 310	F	4 310	7 150
Wakool Junction	8.8	2.31	51.43	4 890	F	6 400	8 660
Euston Weir (d/s)	8.8	1.37	43.21	6 320	F	7 610	8 630
Mildura Weir (d/s)	-	-	30.93	7 050	F	7 940	7 370
Wentworth Weir (d/s)	7.3	2.97	27.73	6 730	F	7 110	6 350
Rufus Junction	-	3.30	20.23	5 560	F	5 570	6 030
Blanchetown (Lock 1 d/s)	-	-	-	3 150	R	3 680	5 130
<b>Tributaries</b>							
Kiewa at Bandiana	2.7	0.49	153.72	50	F	60	80
Ovens at Wangaratta	11.9	7.49	145.17	65	R	90	190
Goulburn at McCoys Bridge	9.0	1.17	92.59	399	R	360	410
Edward at Stevens Weir (d/s)	-	-	-	320	F	310	550
Edward at Liewah	-	1.21	56.59	660	F	910	1 300
Wakool at Stoney Crossing	-	0.51	55.00	486	S	460	380
Murrumbidgee at Balranald	5.0	0.57	56.53	238	F	530	350
Barwon at Mungindi	-	3.65	-	1 320	R	1 440	650
Darling at Bourke	-	2.48	-	0	F	0	0
Darling at Burtundy Rocks	-	0.70	-	110	S	120	130

<b>Natural Inflow to Hume</b> (ie pre Dartmouth & Snowy Mountains scheme)	730	300
---	-----	-----

### Weirs and Locks

#### Pool levels above or below design level

<b>Murray</b>	FSL (m AHD)	u/s	d/s		FSL (m AHD)	u/s	d/s
Yarrowonga	124.90	-0.18	-	No. 7 Rufus River	22.10	+0.05	+0.99
No 26 Torrumbarry	86.05	+0.00	-	No. 6 Murtho	19.25	+0.03	+0.08
No. 15 Euston	47.60	+0.00	-	No. 5 Renmark	16.30	+0.04	+0.12
No. 11 Mildura	34.40	+0.00	+0.13	No. 4 Bookpurnong	13.20	+0.00	+0.55
No. 10 Wentworth	30.80	+0.00	+0.33	No.3 Overland Corner	9.80	+0.00	+0.15
No. 9 Kulinine	27.40	+0.02	+0.00	No. 2 Waikerie	6.10	+0.03	+0.10
No. 8 Wangumma	24.60	+0.01	+0.11	No 1. Blanchetown	3.20	+0.03	-0.31

<b>Murrumbidgee</b>	FSL (m AHD)	relation to FSL	d/s gauge ht.		Flow (ML/day)
			local (m)	(m AHD)	
No. 7 Maude	75.40	-0.09	0.72	70.07	421
No. 5 Redbank	66.90	+0.04	0.22	61.52	333

### Barrages

FSL = 0.75 m AHD

	Openings	Level	Status
Goolwa	128 openings	0.40	All closed
Mundoo	26 openings	0.41	All closed
Boundary Creek	6 openings	-	All closed
Ewe Island	111 gates	-	All closed
Tauwitchere	322 gates	0.40	All closed

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

