REPORT FOR THE WEEK ENDING

Wednesday, 4 December 2002

Our Ref : MDBC:269 :ng **6 December, 2002**

River Murray Water
A Business Unit of MDBC

Rainfalls

Further light falls of rain were recorded along the Great Divide this week, with some falls in excess of 25 mm in the Dartmouth Dam catchment. Streamflows have again shown little or no response and continue to recede, although the cooler, wetter conditions are providing temporary relief of evaporation losses throughout the River Murray System.

Most rainfall totals across the Murray-Darling Basin for the nine months from March to November 2002 inclusive are within in the lowest 10% recorded and, in many areas, the rainfall totals the *lowest* on record – *see attached diagram.* The latest rainfall outlook produced by the Bureau of Meteorology reports that "*Summer rainfall odds are near 50:50 across the country with no strong swings towards wetter or drier conditions*". Further details are available at the BOM website at: http://www.bom.gov.au/climate/ahead/rain_ahead.shtml.

Tributary Inflows

Tributary inflows to the River Murray from the Kiewa, Ovens, Goulburn, Campaspe, Loddon, Murrumbidgee and Darling Rivers currently total only about 1 200 ML/day. Without the regulated releases from the Snowy Scheme, Dartmouth and Hume Dams, it is estimated that the natural flow downstream of Yarrawonga Weir would currently be in the order of about 2 000 ML/day and receding. Accounting for the extremely low tributary inflows downstream of Yarrawonga Weir, and river losses in the River Murray, it is estimated that under natural conditions flow in the River Murray in South Australia would have been extremely low and very likely to have ceased altogether during the coming summer.

System Operation

Storage in Dartmouth Reservoir is now at 55% of capacity and is falling steadily at about ¼ of a percentage point each day. Storage in Hume Reservoir is currently at 14% of capacity and currently falling at about $^{1}/_{3}$ of a percentage point each day. Release from Hume Dam has been increased to about 20 000 ML/day to meet increased demands and losses downstream and is expected to be reduced to about 18 000 ML/day late next week in preparation for the reduction of flow downstream of Yarrawonga Weir to channel capacity rates in mid December.

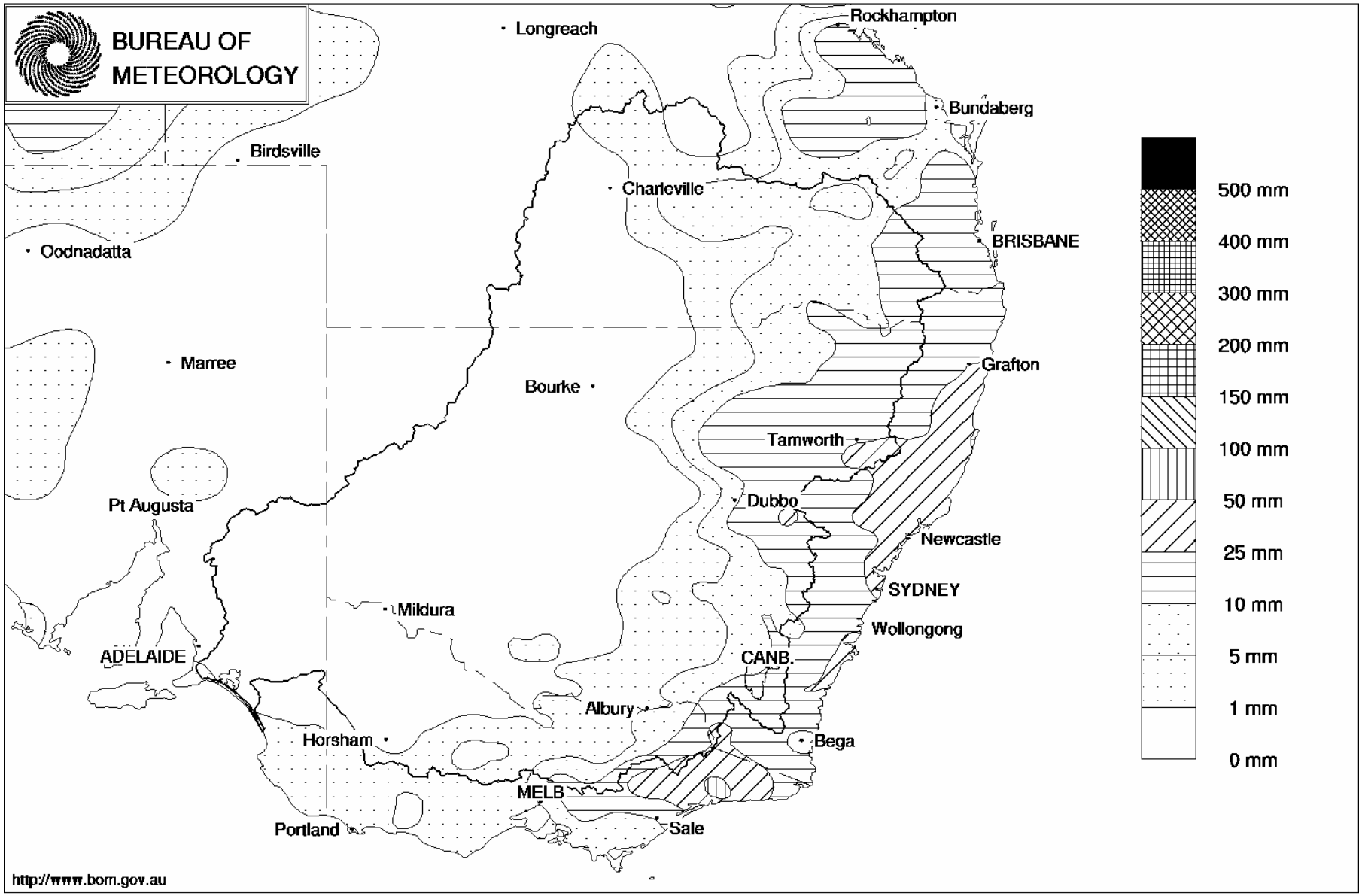
Flow in the River Murray downstream of Torrumbarry Weir reached 9 300 ML/day during the week and is now expected to slowly recede throughout December. Correspondingly, river levels in the reach from Torrumbarry Weir to Boundary Bend can now be expected to gradually fall.

Flow to South Australia has been increased to the December entitlement requirement of 7 000 ML/day.

DAVID DOLE
General Manager

Murray Darling Rainfall Analysis (mm) Week Ending 4th December 2002

Product of the National Climate Centre



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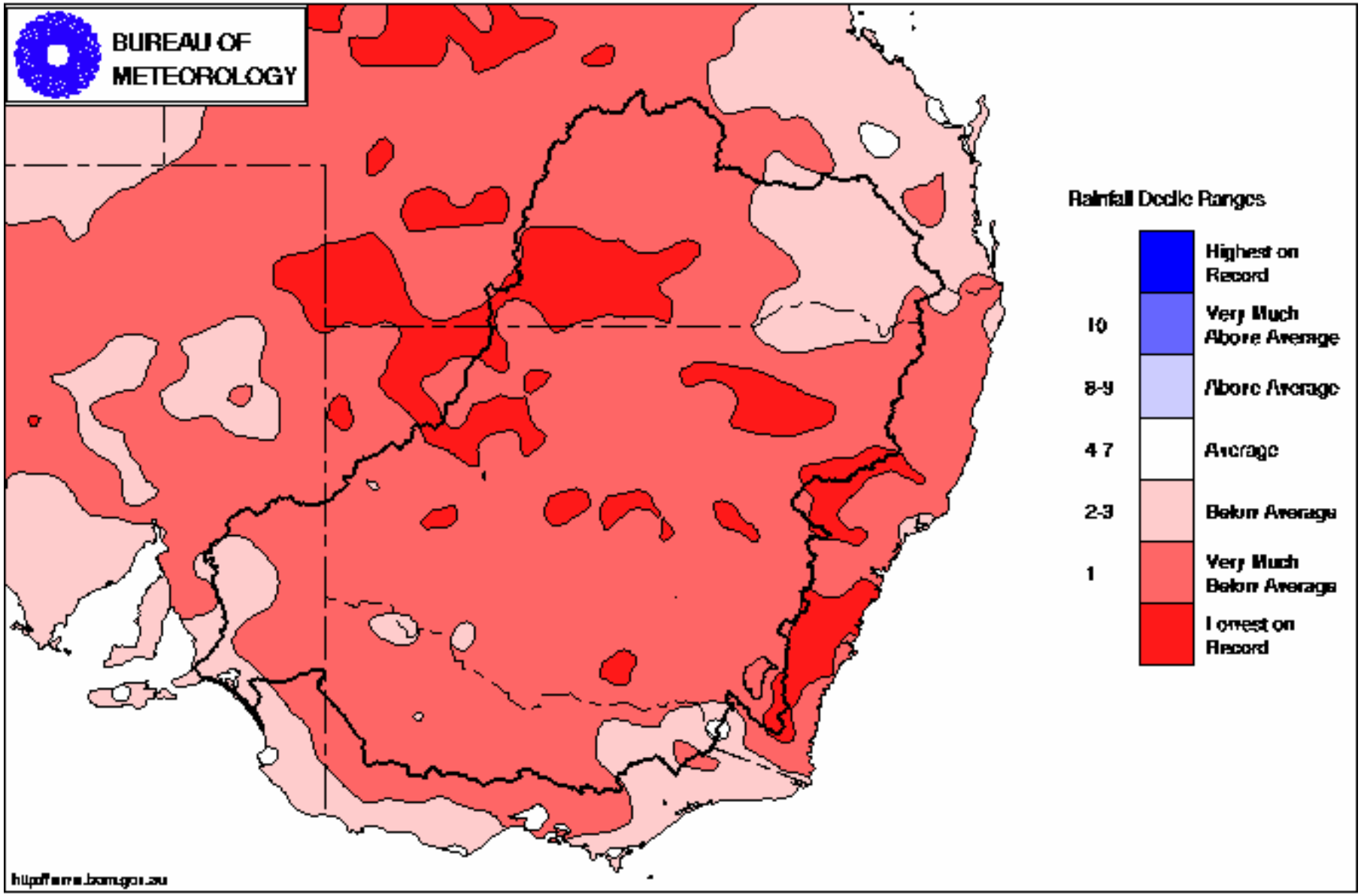
Murray Darling Rainfall Deciles 1 March to 30 November 2002

Distribution Based on Gridded Data
Product of the National Climate Centre



Week ending Wednesday 04 Dec 2002

Water in Storage

MDBC Storages	Full Supply Level	Full Supply Volume	Current Storage Level	Current Storage		Dead Storage	Active Storage	Change in Storage for the week
	(m AHD)	(GL)	(m AHD)	(GL)	%	(GL)	(GL)	(GL)
Dartmouth Reservoir	486.00	3 906	454.94	2 168	56%	80	2 088	-60
Hume Reservoir	192.00	3 038	172.31	425	14%	30	395	-63
Lake Victoria	27.00	680	25.72	539	79%	100	439	+8
Menindee Lakes		1 682 *		164	10%	640 #	0	-10
Total		**9 306**		**3 297**	**35%**	**850**	**2 923**	**-125**

* Menindee surcharge capacity 1999 GL

% of Total Active MDBC Storage = **35%**

NSW Menindee Lakes Reserve

Major State Storages

Burrinjuck Reservoir	1 026		290	28%	3	287	-3
Blowering Reservoir	1 631		206	13%	24	182	-13
Eildon Reservoir	3 390		669	20%	100	569	-11

Snowy Mountains Scheme

Snowy diversions for week ending 03-Dec-2002

Storage (GL)	Current storage	Weekly change	Diversion	This week	From 1 May 2002
Lake Eucumbene - Total	3 145	-27	Snowy-Murray	+4	252
Snowy-Murray Component	1 556	-	Tooma-Tumut	+0	180
Target Storage	1 510		Nett Diversion	4.4	72
			Murray 1 Release	+5	493

Major Diversions from Murray and Lower Darling (GL)

New South Wales	This week	From 1 July 2002
Murray Irrig. Ltd (Net)	7.5	318.8
Wakool System loss	0.2	20.4
Western Murray Irrig.	1.0	10.6
Licensed Pumps	4.0	101.8
Lower Darling	4.8	80.2
TOTAL	**17.4**	**531.9**

Victoria	This week	From 1 July 2002
Yarrawonga Main Channel (net)	12.8	239
Torrumbarry System + Nyah (net)	17.9	455
Sunraysia Pumped Districts	5.7	61
Licensed pumps - GMW (Nyah+u/s)	1.5	27
Licensed pumps - SRW	6.4	75
TOTAL	**44.4**	**857**

Flow to South Australia (GL)

Entitlement this month	217	
Flow this week	44.8	(6 400 ML/day)
Flow so far this month	26	
Flow last month	181	

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)	960	960	870
Lock 9	110	110	210
Lake Victoria	320	310	330
Berri	300	290	390
Waikerie	460	470	550
Morgan	500	490	600
Mannum	620	620	650
Murray Bridge	680	680	730
Milang (Lake Alex.)	1 070	990	980
Poltalloch (Lake Alex.)	1 050	1 010	1 090
Meningie (Lake Alb.)	1 400	1 370	1 470
Goolwa Barrages	2 160	2 260	3 330

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Week ending Wednesday 04 Dec 2002

River Levels and Flows

River Murray	Minor Flood stage (m)	Gauge height local (m)	Gauge height (m AHD)	Flow (ML/day)	Trend	Average flow this week (ML/day)	Average flow last week (ML/day)
Khancoban	-	-	-	1 330	F	1 250	1 930
Jingellic	4.0	1.34	207.86	2 220	F	2 590	3 250
Tallandoon (Mitta Mitta River)	4.2	3.19	220.08	9 960	S	9 940	9 950
Heywoods	5.5	3.53	157.16	21 930	R	19 910	19 610
Doctors Point	5.5	3.66	152.13	22 200	R	20 810	20 200
Albury	4.3	2.73	150.17	-	-	-	-
Corowa	7.0	3.77	129.79	21 300	R	21 140	21 840
Yarrawonga Weir (d/s)	6.4	2.36	117.40	15 000	S	15 000	15 000
Tocumwal	6.4	2.89	106.73	14 730	F	14 880	15 010
Torrumbarry Weir (d/s)	7.3	2.92	81.47	9 180	F	9 170	8 140
Swan Hill	4.5	1.65	64.57	8 560	R	8 220	7 390
Wakool Junction	8.8	3.88	53.00	11 640	R	11 170	10 550
Euston Weir (d/s)	8.8	2.25	44.09	11 730	R	11 500	11 410
Mildura Weir (d/s)		-	31.01	7 980	F	8 080	8 510
Wentworth Weir (d/s)	7.3	3.10	27.86	8 510	R	8 590	9 370
Rufus Junction	-	3.48	17.63	6 630	R	5 820	5 530
Blanchetown (Lock 1 d/s)	-	-	-	3 630	S	3 900	3 550
Tributaries							
Kiewa at Bandiana	2.7	0.70	153.93	250	F	430	330
Ovens at Wangaratta	11.9	7.72	145.40	270	F	440	290
Goulburn at McCoys Bridge	9.0	1.16	92.58	383	F	410	380
Edward at Stevens Weir (d/s)	-	-	-	2 920	F	2 910	2 920
Edward at Liewah	-	3.04	58.42	2 800	R	2 790	2 740
Wakool at Stoney Crossing	-	0.88	55.37	1 610	S	1 510	1 340
Murrumbidgee at Balranald	5.0	0.53	56.49	215	F	200	440
Barwon at Mungindi	-	3.15	-	10	F	40	50
Darling at Bourke	-	3.69	-	0	F	0	10
Darling at Burtundy Rocks	-	0.59	-	0	F	0	20

Natural Inflow to Hume (ie pre Dartmouth & Snowy Mountains scheme)	2 310	1 550

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	-0.22	-	No. 7 Rufus River	22.10	+0.13	+1.17
No 26 Torrumbarry	86.05	+0.00	-	No. 6 Murtho	19.25	+0.01	+0.10
No. 15 Euston	47.60	+0.01	-	No. 5 Renmark	16.30	+0.02	+0.18
No. 11 Mildura	34.40	+0.02	+0.21	No. 4 Bookpurnong	13.20	+0.04	+0.63
No. 10 Wentworth	30.80	+0.00	+0.46	No.3 Overland Corner	9.80	+0.02	+0.14
No. 9 Kulnine	27.40	+0.02	+0.06	No. 2 Waikerie	6.10	-0.01	+0.09
No. 8 Wangumma	24.60	-0.01	+0.25	No 1. Blanchetown	3.20	+0.01	-0.01

Murrumbidgee	FSL (m AHD)	relation to FSL	d/s gauge ht. local (m)	d/s gauge ht. (m AHD)	Flow (ML/day)
No. 7 Maude	75.40	-0.08	1.07	70.42	935
No. 5 Redbank	66.90	+0.04	0.16	61.46	278

Barrages

FSL = 0.75 m AHD

	Openings	Level	Status
Goolwa	128 openings	0.46	All closed
Mundoo	26 openings	0.48	All closed
Boundary Creek	6 openings	-	All closed
Ewe Island	111 gates	-	All closed
Tauwitchere	322 gates	0.52	All closed

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

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