

# REPORT FOR THE WEEK ENDING

Wednesday, 3 January 2007



Our Ref: M2006/01015/prs  
Trim Ref: 07/206

5 January, 2007

## Rainfall and inflows

Over the past two weeks thunderstorm activity has provided localised rain along parts of the River Murray. Most regions received some rainfall however it was not widespread enough in the upper catchment to provide any significant increase in inflow to the River Murray System. At Swan Hill there was 24 mm of rain, while Moulamein on the Edward River received 35 mm. The rain did however reduce irrigation demand and river losses along the mid reaches of the river system, providing a temporary increase in flow in the River Murray downstream of Torrumbarry Weir.

## River Murray Operations

Transfer of water from Dartmouth Reservoir to Hume Reservoir has continued at 10 600 ML/day along the Mitta Mitta River (600 ML/day above normal channel capacity). Inflow to Hume Reservoir from the River Murray remains very low with only 400 ML/day at Jingellic. Whilst these very low flow events along the Upper Murray occurred on several occasions during the major droughts in the first half of the 20<sup>th</sup> century, they have been very rare since the construction of the Snowy Mountains Scheme.

Release from Hume Reservoir has been maintained at about 12 500 ML/day at Albury and the storage level has gradually reduced to 125 GL (4% capacity). In response to lower irrigation demand the release downstream of Yarrawonga Weir has been reduced to 8 000 ML/day.

A reduction in diversions at the National Channel from 2 600 to 1 900 ML/day has temporarily increased the flow downstream of Torrumbarry Weir from 4 500 to 5 000 ML/day. However, if there is no significant rain over the coming week then the release downstream of Torrumbarry Weir is expected to gradually reduce with the arrival of the lower releases from Yarrawonga Weir.

Release downstream of Euston Weir has temporarily increased from 6 000 to 6 500 ML/day and the flow downstream of Wentworth Weir has increased from 4 000 to 4 800 ML/day. These higher than expected flows will be used to supplement the flow to South Australia and reduce the rate of fall in Lake Victoria over the coming week. Storage in Lake Victoria is currently 441 GL (65% capacity).

The flow to South Australia has been steady at about 5 700 ML/day, which is 1 300 ML/day below the normal January entitlement flow. Since Christmas, the flow downstream of Lock 1 has reduced from 3 500 to 3 100 ML/day and the level of the Lower Lakes has fallen from 0.51 m to 0.47 m AHD.

## December Summary

Rainfall for December 2006 was below average for most of Victoria and southern NSW (*see attached map*). River Murray System inflow for December 2006 was 34 GL. Using modelled historical inflows and assuming 'current levels of development', the 34 GL is estimated to be the lowest monthly inflow since 1892. The previous minimum inflow for December was 60 GL in 1982 while the previous minimum in any month was 52 GL in January 1983. System inflow since 1 June 2006 has been 635 GL, which is about 60% less than the previous minimum for the period June to December of 1 114 GL in 1982.

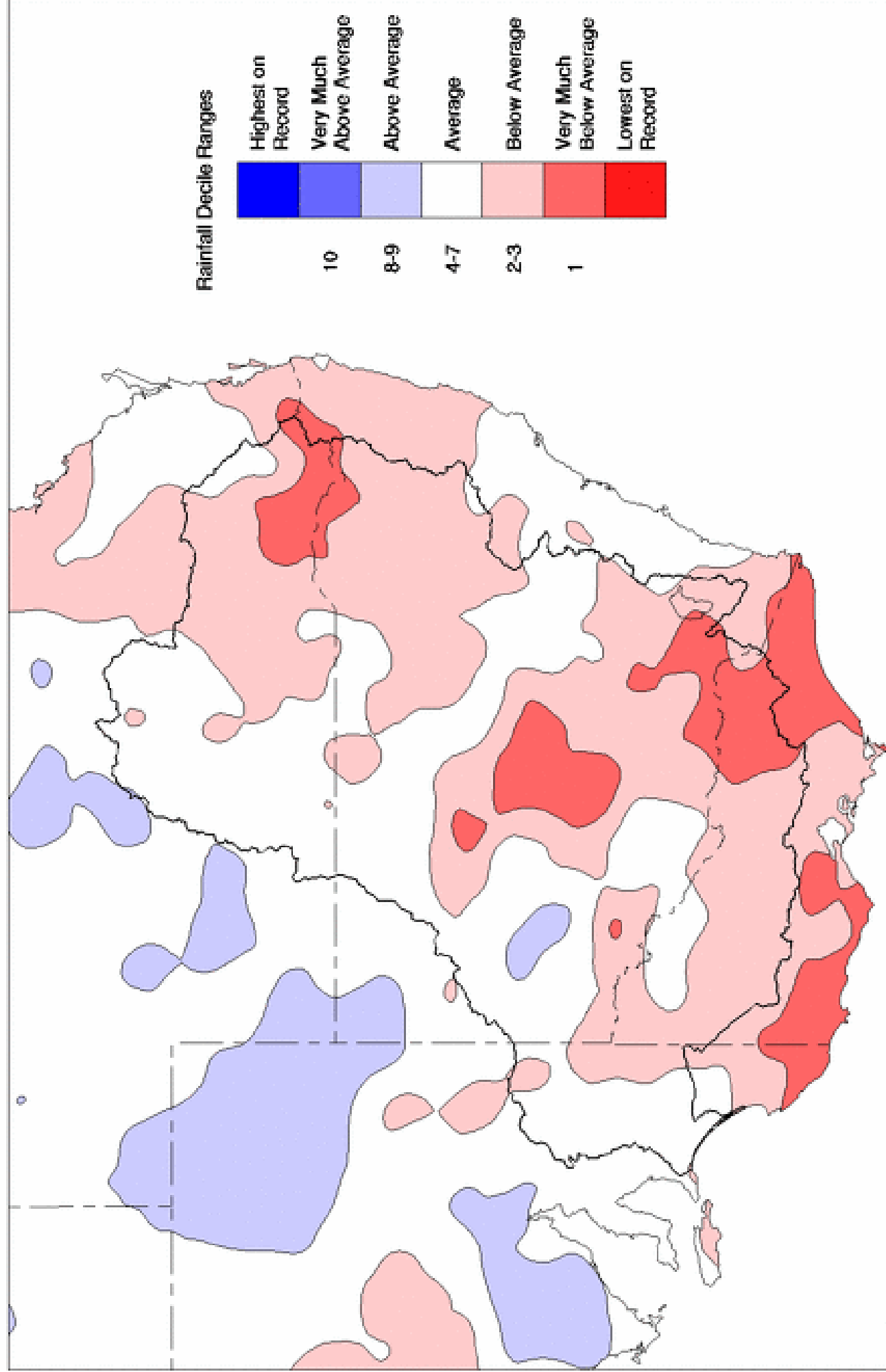
DAVID DREVERMAN  
General Manager

*River Murray Water*  
Sverdrup House ♦ 15 Moore Street Canberra ACT ♦ GPO Box 409 Canberra ACT 2601  
Switchboard (02) 6279 0100 ♦ Weekly Report Enquiries (02) 6279 0126 ♦ Facsimile (02) 6230 6005  
Internet : [www.mdbc.gov.au](http://www.mdbc.gov.au)

---

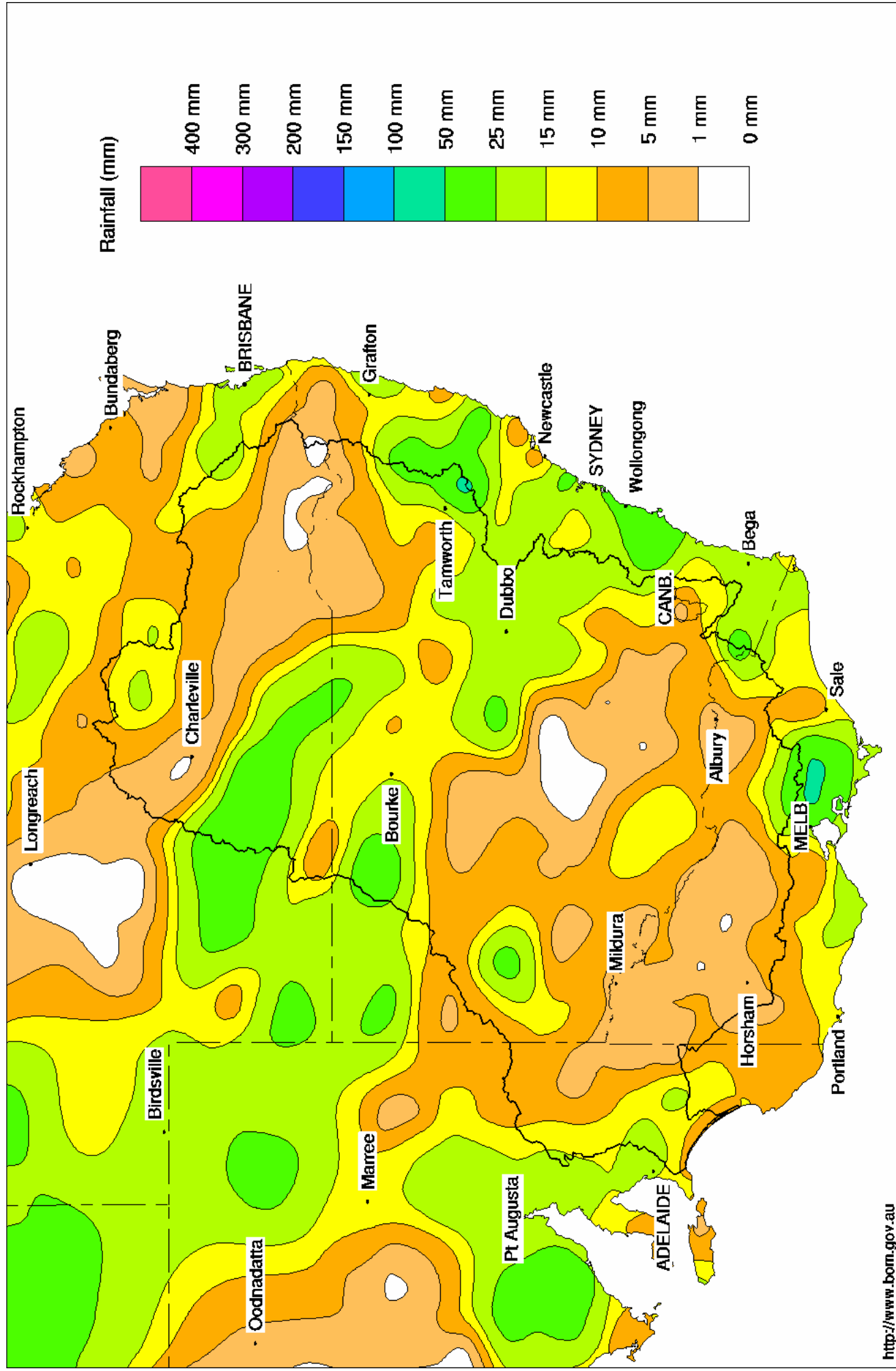
# Murray Darling Rainfall Deciles      December 2006

Distribution Based on Gridded Data  
Product of the National Climate Centre



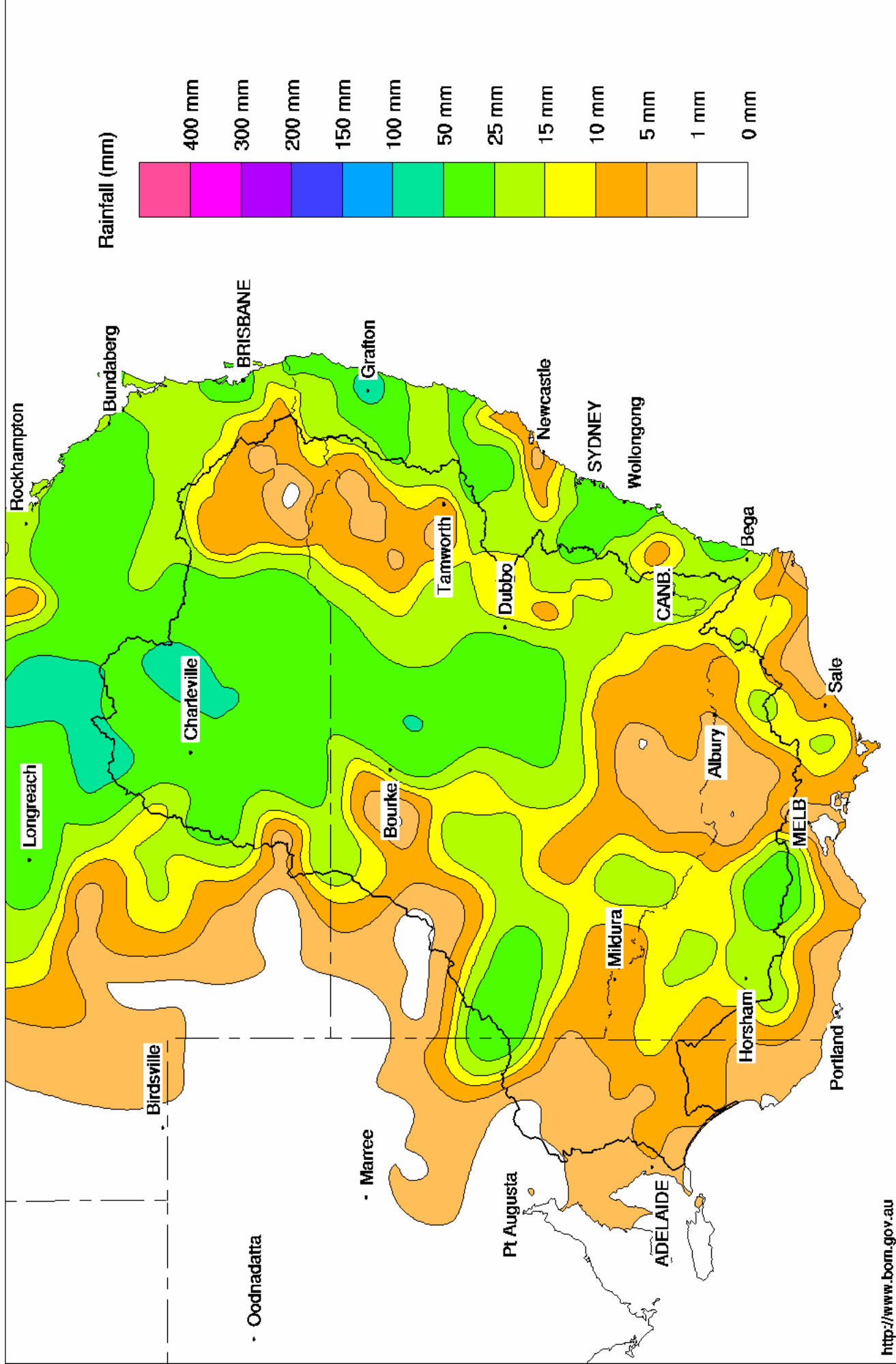
# Murray Darling Rainfall Analysis (mm) Week Ending 27th December 2006

Product of the National Climate Centre



# Murray Darling Rainfall Analysis (mm) Week Ending 3rd January 2007

Product of the National Climate Centre



**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	431.37	1 240	32%	80	1 160	-67
Hume Reservoir	192.00	3 038	167.12	143	5%	30	113	-18
Lake Victoria	27.00	677	25.05	453	67%	100	353	-27
Menindee Lakes		1 731 *		176	10%	(- -) #	0	+3
<b>Total</b>		<b>9 352</b>		<b>2 013</b>	<b>22%</b>	<b>--</b>	<b>1 626</b>	<b>-109</b>

\* Menindee surcharge capacity 2050 GL

% of Total Active MDBC Storage = 19%

# 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		296	29%	3	293	-2
Blowering Reservoir	1 631		316	19%	24	292	-40
Eildon Reservoir	3 390		405	12%	100	305	-14

**Snowy Mountains Scheme**

Snowy diversions for week ending 26-Dec-2006

Storage	Active storage (GL)	Weekly change (GL)	Diversions (GL)	This week	From 1 May 2006
Lake Eucumbene - Total	633	-1	Snowy-Murray	+0	683
Snowy-Murray Component	390	-0	Tooma-Tumut	+3	38
Target Storage	1 510		Nett Diversion	-3.5	645
			Murray 1 Release	+3	780

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

New South Wales	This week	From 1 July 2006
Murray Irrig. Ltd (Net)	2.5	266.6
Wakool System loss	1.8	37.8
Western Murray Irrig.	0.9	12.5
Licensed Pumps	3.7	116.4
Lower Darling	0.7	15.5
<b>TOTAL</b>	<b>9.5</b>	<b>448.8</b>

Victoria	This week	From 1 July 2006
Yarrawonga Main Channel (net)	9.0	225
Torrumbarry System + Nyah (net)	18.3	416
Sunraysia Pumped Districts	5.7	80
Licensed pumps - GMW (Nyah+u/s)	18.2	136
Licensed pumps - LMW	11.3	84
<b>TOTAL</b>	<b>62.5</b>	<b>942</b>

**Flow to South Australia (GL)**

Entitlement this month	217	
Flow this week	39.9	(5 700 ML/day)
Flow so far this month	157	
Flow last month	151	

**Salinity (EC)**

(microsiemens/cm @ 25° C)

	Current	Average over the last week	Average since 1 August 2006
Swan Hill	60	60	70
Euston	80	70	90
Red Cliffs	90	110	120
Merbein	100	90	100
Burtundy (Darling)	940	930	720
Lock 9	100	100	130
Lake Victoria	170	160	150
Berri	200	210	230
Waikerie	-	-	360
Morgan	340	350	390
Mannum	480	480	460
Murray Bridge	470	480	420
Milang (Lake Alex.)	1 300	1 300	1 190
Poltalloch (Lake Alex.)	1 190	1 210	990
Meningie (Lake Alb.)	2 390	2 350	2 220
Goolwa Barrages	2 100	2 150	1 760



**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	-	-	-	140	R	140	390
Jingellic	4.0	1.01	207.53	480	F	350	510
Tallandoon ( Mitta Mitta River )	4.2	3.40	220.29	10 670	S	10 630	10 590
Heywoods	5.5	2.74	156.37	12 170	F	12 360	13 290
Doctors Point	5.5	2.82	151.29	12 600	F	12 690	13 610
Albury	4.3	1.80	149.24	-	-	-	-
Corowa	7.0	2.66	128.68	12 500	F	12 460	14 030
Yarrowonga Weir (d/s)	6.4	1.50	116.54	8 490	S	8 530	9 130
Tocumwal	6.4	2.00	105.84	8 230	S	8 330	8 880
Torrumbarry Weir (d/s)	7.3	1.63	80.18	4 480	S	4 530	4 630
Swan Hill	4.5	0.94	63.86	4 000	S	4 040	4 180
Wakool Junction	8.8	2.57	51.69	6 170	R	6 230	6 740
Euston Weir (d/s)	8.8	1.29	43.13	6 080	S	6 020	6 750
Mildura Weir (d/s)	-	-	-	4 780	F	4 620	5 480
Wentworth Weir (d/s)	7.3	2.93	27.69	4 090	R	3 900	4 790
Rufus Junction	-	3.22	20.15	5 110	S	5 120	5 190
Blanchetown (Lock 1 d/s)	-	0.58	-	3 300	F	3 450	2 820
<b>Tributaries</b>							
Kiewa at Bandiana	2.7	0.50	153.73	70	S	50	60
Ovens at Wangaratta	11.9	7.51	145.19	80	S	80	70
Goulburn at McCoys Bridge	9.0	1.14	92.56	353	F	350	370
Edward at Stevens Weir (d/s)	-	1.85	81.62	1 800	S	2 020	2 380
Edward at Liewah	-	2.74	58.12	2 220	F	2 300	2 440
Wakool at Stoney Crossing	-	0.33	54.82	245	R	260	320
Murrumbidgee at Balranald	5.0	1.44	57.40	887	R	820	820
Barwon at Mungindi	-	3.38	-	400	F	400	600
Darling at Bourke	-	2.87	-	-	F	-	-
Darling at Burtundy Rocks	-	0.70	-	52	S	60	50

<b>Natural Inflow to Hume</b> (ie pre Dartmouth & Snowy Mountains scheme)	1 050	50
---	-------	----

**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	-0.13	-	No. 7 Rufus River	22.10	+0.17	+0.91
No 26 Torrumbarry	86.05	-0.02	-	No. 6 Murtho	19.25	+0.01	+0.07
No. 15 Euston	47.60	+0.01	-	No. 5 Renmark	16.30	+0.01	+0.16
No. 11 Mildura	34.40	+0.06	+0.13	No. 4 Bookpurnong	13.20	+0.02	+0.53
No. 10 Wentworth	30.80	+0.06	+0.29	No.3 Overland Corner	9.80	-0.01	+0.17
No. 9 Kulnine	27.40	+0.09	+0.04	No. 2 Waikerie	6.10	+0.02	+0.10
No. 8 Wangumma	24.60	+0.05	+0.22	No 1. Blanchetown	3.20	+0.02	-0.17

<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	-1.43	1.3	70.65	1400
No. 5 Redbank	66.90	-2.46	1.09	62.39	1350



**Lower Lakes**

FSL = 0.75 m AHD

	(m AHD)
Lake Alexandrina average level for the past 5 days	0.50

**Barrages**

**Fishways @ Barrages**

	Openings	Level (m AHD)	Status	Rock Ramp	Vertical Slot
Goolwa	128 openings	0.52	All closed	-	Open
Mundoo	26 openings	-	All closed	-	-
Boundary Creek	6 openings	-	All closed	-	-
Ewe Island	111 gates	-	All closed	-	-
Tauwitchere	322 gates	0.48	All closed	Closed	Open

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

**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	429.20	1 171	30%	80	1 091	-70
Hume Reservoir	192.00	3 038	166.62	125	4%	30	95	-18
Lake Victoria	27.00	677	24.93	441	65%	100	341	-13
Menindee Lakes		1 731 *		180	10%	(- -) #	0	+3
<b>Total</b>		<b>9 352</b>		<b>1 916</b>	<b>20%</b>	<b>--</b>	<b>1 526</b>	<b>-97</b>

\* Menindee surcharge capacity 2050 GL

% of Total Active MDBC Storage = **18%**

# 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	296	29%	3	293	+0
Blowering Reservoir	1 631	272	17%	24	248	-43
Eildon Reservoir	3 390	394	12%	100	294	-11

**Snowy Mountains Scheme**

Snowy diversions for week ending 02-Jan-2007

Storage	Active storage (GL)	Weekly change (GL)	Diversion (GL)	This week	From 1 May 2006
Lake Eucumbene - Total	635	+3	Snowy-Murray	+0	683
Snowy-Murray Component	391	+1	Tooma-Tumut	+1	39
Target Storage	1 520		Nett Diversion	-0.6	644
			Murray 1 Release	+0	780

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

New South Wales	This week	From 1 July 2006
Murray Irrig. Ltd (Net)	3.4	270.0
Wakool System loss	1.7	39.5
Western Murray Irrig.	0.9	13.4
Licensed Pumps	3.9	120.4
Lower Darling	0.7	16.1
<b>TOTAL</b>	<b>10.5</b>	<b>459.4</b>

Victoria	This week	From 1 July 2006
Yarrowonga Main Channel (net)	10.8	236
Torrumbarry System + Nyah (net)	17.8	434
Sunraysia Pumped Districts	<b>N/A</b> *	86
Licensed pumps - GMW (Nyah+u/s)	1.4	138
Licensed pumps - LMW	11.0	95
<b>TOTAL</b>	<b>41.0</b>	<b>988</b>

\* Data not supplied

**Flow to South Australia (GL)**

Entitlement this month	217	
Flow this week	39.8	(5 700 ML/day)
Flow so far this month	17	
Flow last month	179	

**Salinity (EC)**

(microsiemens/cm @ 25° C)

	Current	Average over the last week	Average since 1 August 2006
Swan Hill	70	60	70
Euston	80	80	90
Red Cliffs	100	90	110
Merbein	100	100	100
Burtundy (Darling)	960	940	730
Lock 9	100	100	120
Lake Victoria	160	170	160
Berri	200	200	230
Waikerie	320	320	360
Morgan	340	340	380
Mannum	450	460	460
Murray Bridge	510	480	430
Milang (Lake Alex.)	1 320	1 280	1 190
Poltalloch (Lake Alex.)	1 190	1 210	1 000
Meningie (Lake Alb.)	2 380	2 370	2 230
Goolwa Barrages	2 110	2 140	1 780



**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	-	-	-	130	S	130	140
Jingellic	4.0	0.97	207.49	- 10	F	- 10	350
Tallandoon ( Mitta Mitta River )	4.2	3.40	220.29	10 670	F	10 650	10 630
Heywoods	5.5	2.69	156.32	11 650	S	12 110	12 360
Doctors Point	5.5	2.77	151.24	12 100	F	12 510	12 690
Albury	4.3	1.75	149.19	-	-	-	-
Corowa	7.0	2.58	128.60	11 900	F	12 440	12 460
Yarrowonga Weir (d/s)	6.4	1.50	116.54	8 490	S	8 490	8 530
Tocumwal	6.4	1.99	105.83	8 170	S	8 170	8 330
Torrumbarry Weir (d/s)	7.3	1.62	80.17	4 410	F	4 500	4 530
Swan Hill	4.5	1.00	63.92	4 320	R	4 060	4 040
Wakool Junction	8.8	2.61	51.73	6 340	R	6 090	6 230
Euston Weir (d/s)	8.8	1.30	43.14	6 140	S	6 090	6 020
Mildura Weir (d/s)	-	-	-	4 810	F	4 590	4 620
Wentworth Weir (d/s)	7.3	2.90	27.66	4 380	R	4 010	3 900
Rufus Junction	-	3.25	20.18	5 270	F	5 200	5 120
Blanchetown (Lock 1 d/s)	-	0.44	-	3 190	R	3 280	3 450
<b>Tributaries</b>							
Kiewa at Bandiana	2.7	0.46	153.69	- 10	F	0	50
Ovens at Wangaratta	11.9	7.53	145.21	96	F	80	80
Goulburn at McCoys Bridge	9.0	1.12	92.54	338	S	340	350
Edward at Stevens Weir (d/s)	-	1.81	81.58	1 740	F	1 690	2 020
Edward at Liewah	-	2.59	57.97	2 020	F	2 110	2 300
Wakool at Stoney Crossing	-	0.38	54.87	316	F	290	260
Murrumbidgee at Balranald	5.0	1.51	57.47	943	F	930	820
Barwon at Mungindi	-	3.26	-	136	F	110	400
Darling at Bourke	-	2.82	-	-	F	-	-
Darling at Burtundy Rocks	-	0.70	-	52	S	50	60

<b>Natural Inflow to Hume</b> (ie pre Dartmouth & Snowy Mountains scheme)	240	1 050
---	-----	-------

**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	-0.14	-	No. 7 Rufus River	22.10	+0.10	+0.95
No 26 Torrumbarry	86.05	+0.00	-	No. 6 Murtho	19.25	+0.02	+0.09
No. 15 Euston	47.60	+0.01	-	No. 5 Renmark	16.30	+0.02	+0.17
No. 11 Mildura	34.40	+0.07	+0.14	No. 4 Bookpurnong	13.20	+0.03	+0.54
No. 10 Wentworth	30.80	+0.08	+0.26	No.3 Overland Corner	9.80	+0.01	+0.15
No. 9 Kulnine	27.40	+0.05	+0.00	No. 2 Waikerie	6.10	+0.00	+0.08
No. 8 Wangumma	24.60	+0.00	+0.15	No 1. Blanchetown	3.20	+0.01	-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	-1.55	1.41	70.76	1630
No. 5 Redbank	66.90	-3.03	1.06	62.36	1310

**Lower Lakes**

FSL = 0.75 m AHD

	(m AHD)
Lake Alexandrina average level for the past 5 days	0.49



**Barrages**

**Fishways @ Barrages**

	Openings	Level (m AHD)	Status	Rock Ramp	Vertical Slot
Goolwa	128 openings	0.52	All closed	-	Open
Mundoo	26 openings	-	All closed	-	-
Boundary Creek	6 openings	-	All closed	-	-
Ewe Island	111 gates	-	All closed	-	-
Tauwitchere	322 gates	0.56	All closed	Closed	Open

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