

# REPORT FOR THE WEEK ENDING

Wednesday, 22 October 2003

Our Ref : RMW305/01//01/ng

29 April, 2004



## ***Rainfall Reduces Irrigation Demands***

Falls of between 10 and 50 mm were recorded across the upper Murray this week, although streamflow responses were small. In general, streamflows in the Upper Murray and unregulated tributaries have receded very slowly over the past two weeks. However, cooler, milder conditions over the last week have helped to reduce irrigation demand, which has reduced the requirement to release water from upper storages.

Storage in Dartmouth Reservoir increased by 30 GL and is at 43% of capacity, with storage in Hume Reservoir rising by 38 GL to 72% of capacity. Release from Hume Dam will be reduced over the next few days in anticipation of rainfall forecast for this coming weekend. If rainfall fails to meet forecasts, releases from Hume will be increased next week.

## ***Hume to Lake Victoria Transfers to Begin Next Week***

The flow in the River Murray at Barmah receded to about 6 800 ML/day this week, as the flow returning to the river from the Barmah-Millewa Forest receded. Hence, releases from Yarrowonga Weir was increased from 7 000 to 8 500 ML/day to ensure irrigation demands and minimum flows can be met.

From Thursday 23 October, releases from Hume Dam will include a component destined to be transferred to Lake Victoria. Releases from Yarrowonga Weir will be increased next week to pass this water downstream. Whilst Lake Victoria is currently at 100% capacity, these Hume to Lake Victoria transfers will take three to four weeks to reach Lake Victoria, by which time Lake Victoria is expected to have fallen as water is drawn from the lake to assist in meeting South Australia's entitlements.

If conditions over the next few weeks are very wet, there is a risk that some of the water transferred to Lake Victoria could spill. However, transfers are required to commence now to utilise channel capacity prior to irrigation demand peaking over the summer months. If transfers are delayed any further, and if conditions are dry, there is a risk that Lake Victoria could fall below critical levels during late summer-early autumn, threatening irrigation supplies downstream of Yarrowonga.

## ***Gulpa Creek Wetlands***

NSW State Forests have advised that arrangements will be put in place next week to continue to supply water to specific wetlands in the Gulpa Creek system, which comprises part of the Millewa Forest. These flows, sourced from existing NSW Environmental Water Accounts, are often supplied in late spring to provide a drought refuge for waterfowl. David Leslie, an ecologist with State Forests, has advised RMW that Blue Billed Ducks, listed as a significant/threatened species in both NSW and Victoria, are currently breeding in the Gulpa Creek system. Flows will continue to be delivered at the Gulpa Creek offtake at up to 750 ML/day (regulated capacity 350 ML/day) until late November-early December.

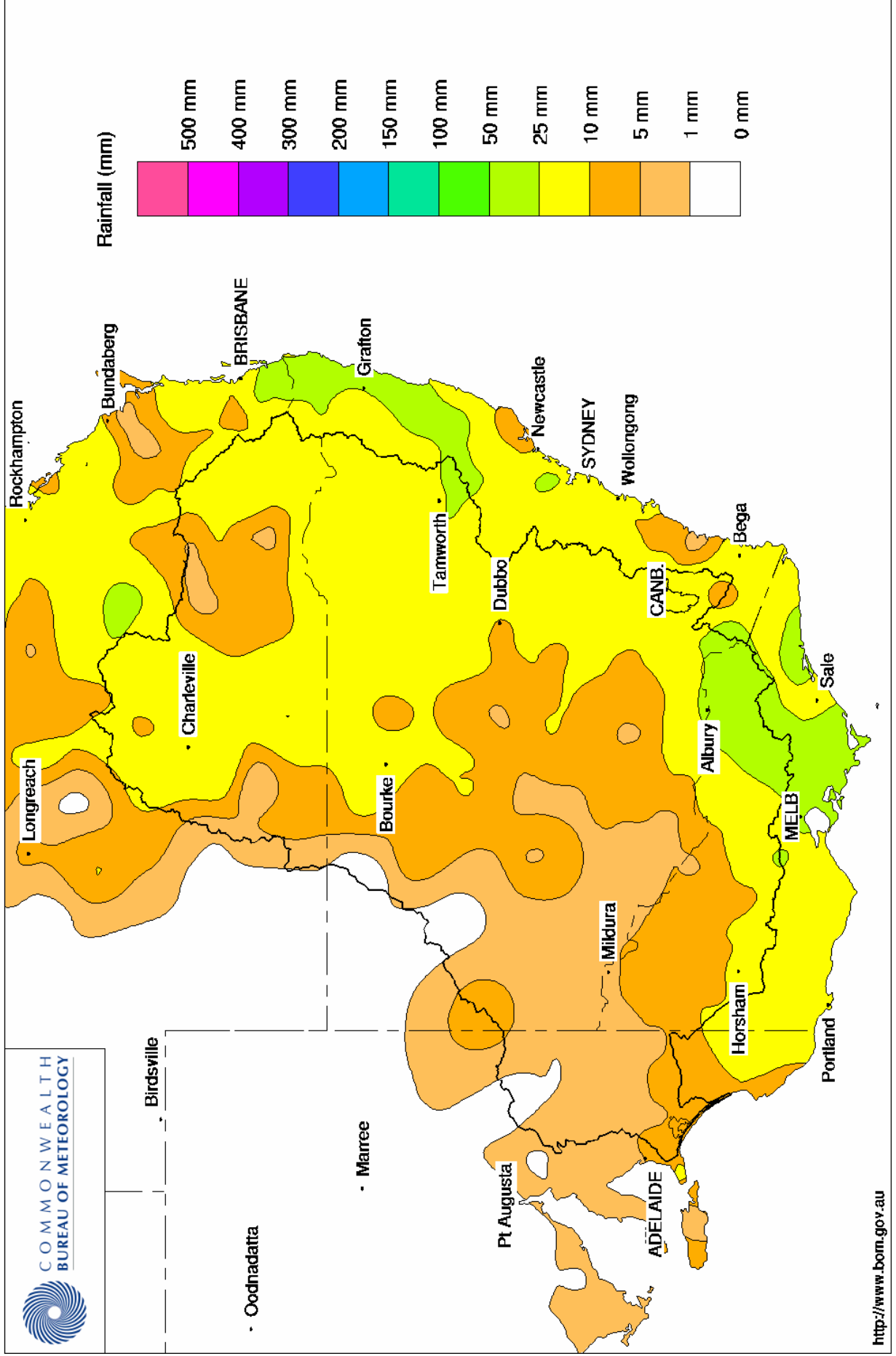
DAVID DOLE  
General Manager

*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 Analysis (mm) Week Ending 22nd October 2003

Product of the National Climate Centre

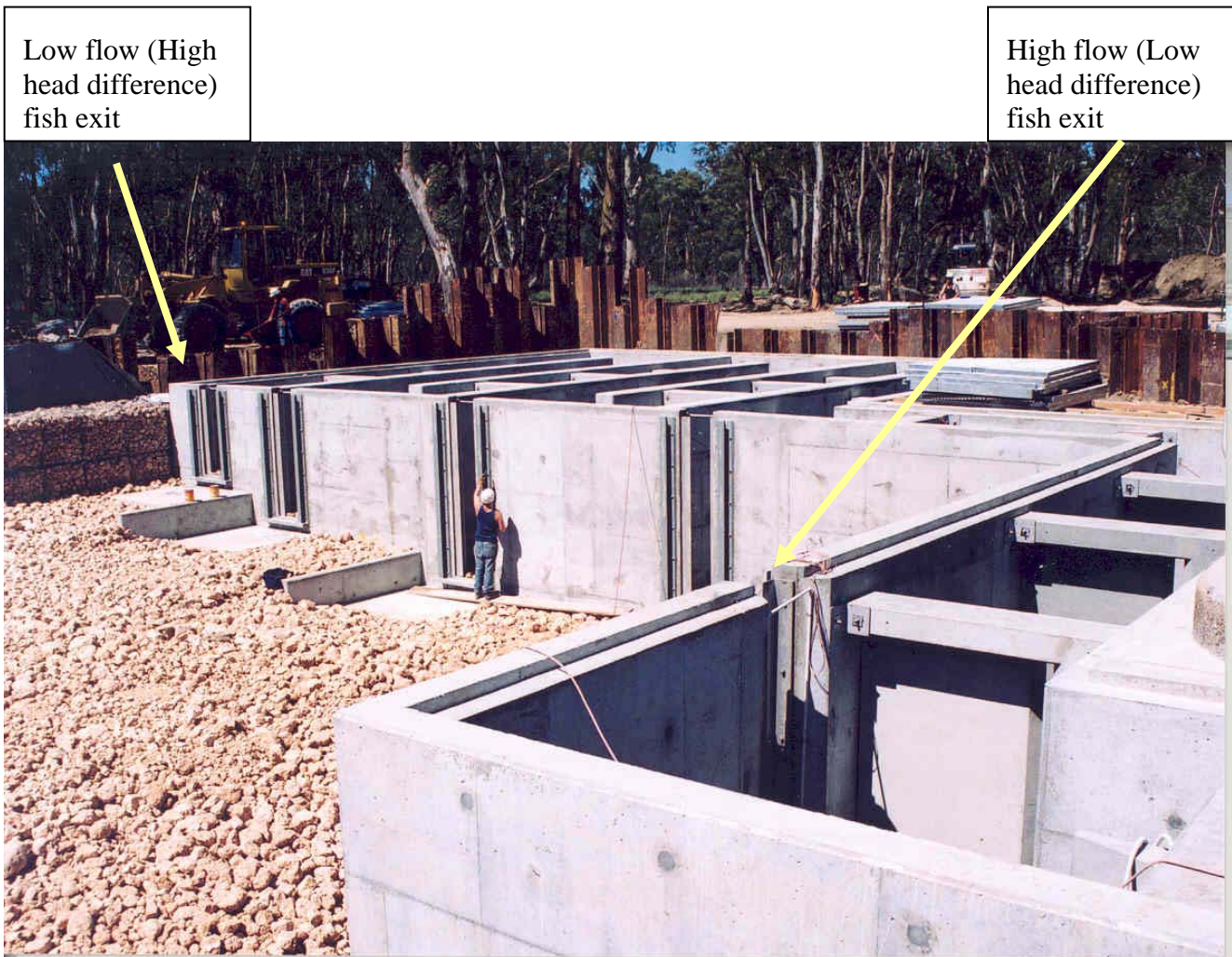




Lock 8 Fishway vertical slot constructed from precast concrete panels, looking upstream. Cobbles have been glued to the floor with epoxy to provide additional roughness, which is intended to assist smaller fish.



Lock 8 Fishway vertical slot looking downstream.



Lock 8 Fishway nearly complete, 24/09/2003. The construction worker in mid picture shows the size of the structure.

Multiple exit races in the Fishway cater for low to high downstream water levels. That is, at low flows, downstream water levels will be low, increasing the water level (head) difference across the weir and Fishway. Hence, upstream gates are opened in the Fishway to increase the number of bays through which the flow passes, thereby keeping the flow velocity in each bay of the Fishway within the desired range.

At high flow, the head difference across the weir and Fishway is less, and the length of the Fishway is effectively reduced by closing upstream doors and opening a door further downstream, also keeping the flow velocity in each bay within the desired range.

## Week ending Wednesday 22 Oct 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	443.83	1 691	43%	80	1 611	+30
Hume Reservoir	192.00	3 038	187.36	2 186	72%	30	2 156	+38
Lake Victoria	27.00	680	27.00	680	100%	100	580	+4
Menindee Lakes		1 603 *		55	3%	640 #	0	-2
<b>Total</b>		<b>9 227</b>		<b>4 612</b>	<b>50%</b>	<b>850</b>	<b>4 346</b>	<b>+70</b>

\* Menindee surcharge capacity 1916 GL

% of Total Active MDBC Storage = **52%**

# NSW Menindee Lakes Reserve

### Major State Storages

Burrinjuck Reservoir	1 026	430	42%	3	427	+7
Blowering Reservoir	1 631	889	54%	24	865	-20
Eildon Reservoir	3 390	1 349	40%	100	1 249	+29

### Snowy Mountains Scheme

Snowy diversions for week ending 21-Oct-2003

Storage	Active storage (GL)	Weekly change (GL)	Diversion (GL)	This week	From 1 May 2003
Lake Eucumbene - Total	1 813	+26	Snowy-Murray	+1	509
Snowy-Murray Component	894	-	Tooma-Tumut	+14	180
Target Storage	1 400		Nett Diversion	-12.5	329
			Murray 1 Release	+20	738

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

New South Wales	This week	From 1 July 2003
Murray Irrig. Ltd (Net)	29.3	150.0
Wakool System loss	0.5	2.2
Western Murray Irrig.	0.5	2.9
Licensed Pumps	5.2	41.8
Lower Darling	0.2	1.3
<b>TOTAL</b>	<b>35.6</b>	<b>198.2</b>

Victoria	This week	From 1 July 2003
Yarrowonga Main Channel (net)	10.8	40
Torrumbarry System + Nyah (net)	21.3	127
Sunraysia Pumped Districts	3.6	16
Licensed pumps - GMW (Nyah+u/s)	0.8	3
Licensed pumps - SRW	4.0	50
<b>TOTAL</b>	<b>40.5</b>	<b>235</b>

### Flow to South Australia (GL)

Entitlement this month	170	(5 600 ML/day)
Flow this week	39.4	
Flow so far this month	158	
Flow last month	299	

### Salinity (EC)

(microsiemens/cm @ 25° C)

	Current	Average over the last week	Average since 1 August 2003
Swan Hill	110	90	120
Euston	110	110	130
Red Cliffs	130	130	130
Merbein	140	130	130
Burtundy (Darling)	1 720	1 730	1 680
Lock 9	140	140	170
Lake Victoria	220	210	230
Berri	250	250	290
Waikerie	-	330	450
Morgan	350	330	460
Mannum	350	360	520
Murray Bridge	480	510	560
Milang (Lake Alex.)	1 040	1 080	1 010
Poltalloch (Lake Alex.)	1 100	1 060	1 080
Meningie (Lake Alb.)	1 650	1 580	1 460
Goolwa Barrages	1 240	1 210	2 830



**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	-	-	-	5 770	F	5 110	3 640
Jingellic	4.0	2.33	208.85	10 460	F	9 590	9 410
Tallandoon ( Mitta Mitta River )	4.2	1.67	218.56	1 500	R	1 530	1 520
Heywoods	5.5	2.07	155.70	6 540	F	6 230	2 920
Doctors Point	5.5	2.61	151.08	9 370	F	8 540	5 250
Albury	4.3	1.54	148.98	-	-	-	-
Corowa	7.0	2.38	128.40	11 000	R	8 990	4 880
Yarrowonga Weir (d/s)	6.4	1.55	116.59	8 520	S	7 880	7 670
Tocumwal	6.4	2.07	105.91	9 150	S	8 250	9 190
Torrumbarry Weir (d/s)	7.3	1.46	80.01	3 820	F	4 780	8 070
Swan Hill	4.5	1.04	63.96	4 570	F	5 570	7 650
Wakool Junction	8.8	2.82	51.94	7 300	F	8 440	9 600
Euston Weir (d/s)	8.8	1.52	43.36	7 160	F	8 350	9 580
Mildura Weir (d/s)	-	-	31.03	8 220	F	8 550	10 420
Wentworth Weir (d/s)	7.3	3.03	27.79	7 720	R	7 560	9 480
Rufus Junction	-	3.30	20.23	5 560	R	5 180	9 320
Blanchetown (Lock 1 d/s)	-	-	-	4 250	F	5 430	7 150
<b>Tributaries</b>							
Kiewa at Bandiana	2.7	2.41	155.64	3 670	R	3 100	2 850
Ovens at Wangaratta	11.9	8.97	146.65	3 520	F	3 410	4 670
Goulburn at McCoys Bridge	9.0	1.29	92.71	572	R	550	930
Edward at Stevens Weir (d/s)	-	-	-	480	F	750	1 370
Edward at Liewah	-	1.84	57.22	1 180	F	1 190	900
Wakool at Stoney Crossing	-	0.66	55.15	870	F	890	840
Murrumbidgee at Balranald	5.0	0.55	56.51	227	F	210	230
Barwon at Mungindi	-	3.58	-	1 050	F	1 430	550
Darling at Bourke	-	3.94	-	0	F	10	70
Darling at Burtundy Rocks	-	0.68	-	0	F	30	0

<b>Natural Inflow to Hume</b> (ie pre Dartmouth & Snowy Mountains scheme)	14 570	16 840
---	--------	--------

**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	-0.17	-	No. 7 Rufus River	22.10	+0.14	+1.00
No 26 Torrumbarry	86.05	-0.01	-	No. 6 Murtho	19.25	+0.05	+0.05
No. 15 Euston	47.60	+0.00	-	No. 5 Renmark	16.30	+0.01	+0.14
No. 11 Mildura	34.40	+0.06	+0.23	No. 4 Bookpurnong	13.20	+0.02	+0.53
No. 10 Wentworth	30.80	+0.01	+0.39	No.3 Overland Corner	9.80	+0.00	+0.17
No. 9 Kulnine	27.40	+0.02	+0.01	No. 2 Waikerie	6.10	+0.02	+0.12
No. 8 Wangumma	24.60	-0.01	+0.12	No 1. Blanchetown	3.20	+0.05	+0.19

<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	-0.71	0.51	69.86	219
No. 5 Redbank	66.90	-0.70	0.18	61.48	296

**Barrages**

FSL = 0.75 m AHD

	Openings	Level	Status
Goolwa	128 openings	0.82	All closed
Mundoo	26 openings	0.84	All closed
Boundary Creek	6 openings	-	All closed
Ewe Island	111 gates	-	All closed
Tauwichee	322 gates	0.83	All closed

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

