

REPORT FOR THE WEEK ENDING

Wednesday, 7 February 2007



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9 February, 2007

Rainfall

Dry conditions persisted across the southern half of the Basin while falls of up to 20 mm were recorded in northern NSW and southern Queensland. The rain in Queensland over the past month has mainly fallen to the north of the Darling River catchment. However, the flow in the Paroo River at Willara Crossing (NSW-Qld Border) has increased to 8 900 ML/day and the flow in the Warrego River at Barrington (NSW-Qld Border) has increased to 1 000 ML/day. Whilst the flow in the Paroo River will terminate in wetlands at the southern end of that system, it is possible that a small volume of water (about 2 GL) from the Warrego River may reach the Darling River.

River Operations

Flow downstream of Dartmouth Reservoir has been maintained at 10 000 ML/day and the current storage volume has reduced to 826 GL (21% capacity). Release from Hume Reservoir was temporarily increased from 12 000 to 13 000 ML/day to offset higher river losses and to store additional water in Lake Mulwala. This is part of a series of actions being undertaken to minimise the risk of temporary water supply restrictions over the coming months (*see attached Operations Update for details*).

Release from Yarrawonga Weir has been reduced from 8 600 to 8 000 ML/day and there is the possibility of a further small reduction over the coming week. Release from Stevens Weir (Edward River) is currently 1 400 ML/day and is expected to be reduced to about 1 200 ML/day this weekend.

Inflow from the Murrumbidgee River at Balranald is gradually being lowered from 850 ML/day to the minimum flow of 200 ML/day. This inflow has been high over the past few months in order to deliver irrigation water traded from Murrumbidgee to Murray irrigators.

The flow to South Australia has been steady this week at about 7 000 ML/day and the flow downstream of Lock 1 has gradually reduced from 4 800 to 3 500 ML/day. The level of the Lower Lakes in South Australia has been steady at about 0.38 m AHD.

Water Quality

Over the past few weeks the salinity level in the Goolwa Channel upstream of the Goolwa Barrage has increased from 2 100 EC up to about 5 000 EC. This is due to saline water leaking through the barrage gates when ocean tides have been higher than the water level in the lake. The extent of this highly saline water is currently limited to the Goolwa Channel with the salinity at other sites around Lake Alexandrina remaining at 1 200 - 1 500 EC.

There is a RED (high) algal alert for the River Murray at Corowa, Menindee Lakes and parts of the Darling River downstream of Menindee. In addition, Lake Hume and the River Murray at Albury, Yarrawonga, Tocumwal, Euston and Mt Dispersion are on AMBER (moderate) alert. For more information contact your local council or <http://www.dnr.nsw.gov.au/water/algal.shtml>.

DAVID DREVERMAN

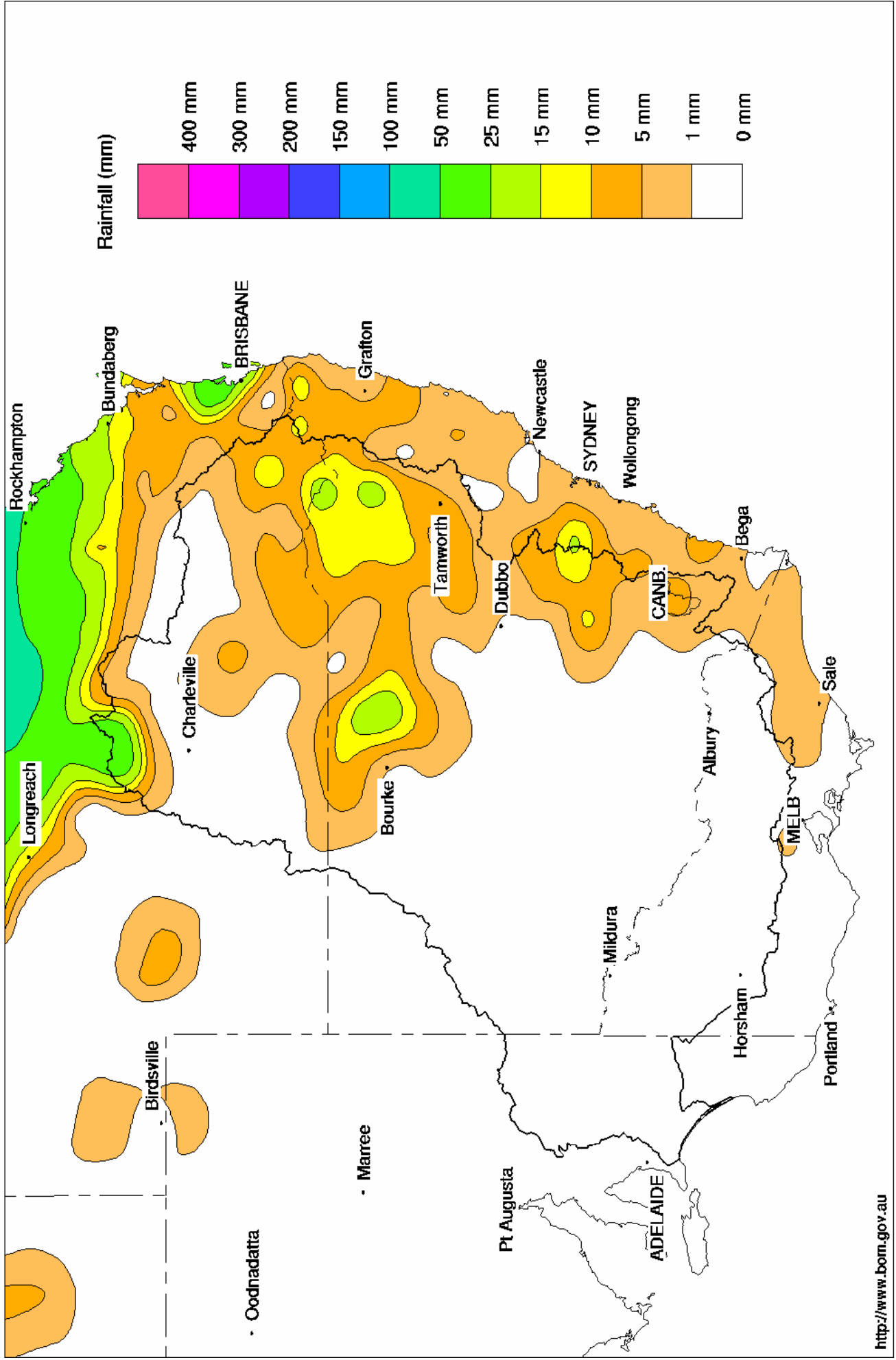
General Manager

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*

Murray Darling Rainfall Analysis (mm) Week Ending 7th February 2007

Product of the National Climate Centre





River Murray System Operational Update

Welcome to the second edition of the Murray-Darling Basin Commission's (MDBC) River Murray System Operational update. This update fills the gap between our Drought Updates and Weekly Reports by providing more detailed information on River Murray System operations and outlooks.

Operational Updates will communicate critical aspects of river operations including projected storage levels, releases, and specific operations including potential drawdowns of weirs.

Latest News

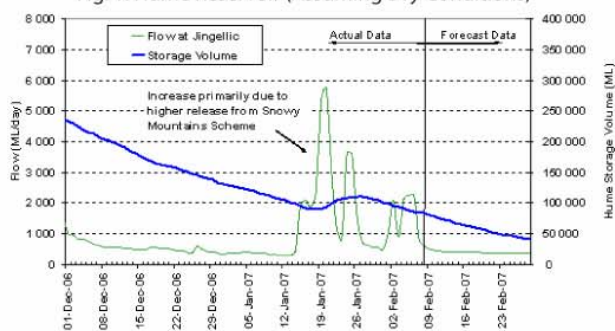
January Rain

There were good falls of rain in January mainly along the mid and lower sections of the River Murray. This temporarily reduced river losses and irrigation diversions, and also provided a small increase to river flows and the level of the Lower Lakes in South Australia. However, there was insufficient rain in the upper catchment to significantly increase unregulated inflows to Hume and Dartmouth storages.

Release from the Snowy Mountain Scheme

During January approximately 56 GL was released from the Snowy Mountains Scheme into Hume Reservoir. This was significantly more than planned for January under the 'dry scenario' and provided a temporary increase in storage in Hume Reservoir (Figure 1). As this water was planned to be released during the autumn it has not added to water resource availability for this season. However it has enabled the release from Dartmouth Dam to be reduced from 10 600 to 10 000 ML/day and has also reduced the risk of temporary water rationing this year.

Fig. 1: Hume Reservoir (Assuming Dry Conditions)



Outlook for February, March and April

Dartmouth Reservoir

Storage is currently 817 GL (21% capacity, as at 8 February). The current release rate of 10 000 ML/day will be gradually lowered over the coming months as downstream requirements reduce. If conditions

remain dry, storage in Dartmouth is expected to be between 5 and 10% of capacity by the end of April. If there is significant rain, then release from Dartmouth will be reduced at the earliest opportunity to minimise erosion of river banks and to conserve as much water as possible for next season in Dartmouth.

Hume Reservoir

Storage is currently 80 GL (2.6% capacity). If conditions remain dry, it is expected that Hume Reservoir will be gradually drawn down to between 1 and 2% capacity by the end of February 2007 and is likely to remain at about this level until there is a significant rain event in the Upper Murray catchment.

Lake Mulwala and other weir pools

While Hume Reservoir storage is very low, Lake Mulwala will be maintained at the high end of its operating range. This will provide more flexibility to offset short-term high evaporation losses (should they arise) and minimise the need for temporary water supply rationing. Currently it is expected that Lake Mulwala will remain within its 'normal operating range' (124.60m AHD to 125.15m AHD) until the end of the irrigation season in late April.

During this time the majority of other weir pools, including those in South Australia, are also expected to be maintained within their 'normal' operating levels. The exception is Lock 8, which may need to be partially lowered for a short period to assist the delivery of water to South Australia should the level of Lake Victoria fall to very low levels. This is because at very low levels, the outlet capacity from Lake Victoria is severely restricted.

RMW cannot rule out the possibility of a temporary reduction in water levels of weir pools, including Lake Mulwala, below their 'normal operating range' as a result of a very high temperatures and evaporative losses. However the risk of this occurring has reduced significantly following the rainfall and higher inflows from the Snowy Mountains Scheme during January.

River Flows

Despite the low water allocations, flows along the mid Murray are relatively high at present (see Figure 2) primarily to supply South Australia's flow requirement during February (7 000 ML/day). The level of the Lower Lakes in South Australia is currently 0.37m AHD and if conditions remain dry may fall below 0.2m AHD during March.

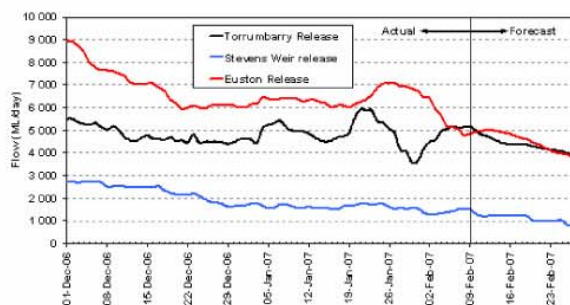
The flow to South Australia is planned to reduce significantly during March and April as will flow rates along the entire River Murray System. The flow downstream of Euston Weir is currently 5 000 ML/day and if conditions remain dry is expected to be about



3 000 ML/day by mid March. However, the timing and rate of reduction to river flow rates will be very sensitive to weather events and the storage level in Lake Victoria. A rain front or cooler conditions, which reduce diversions and losses, may permit flows to be reduced earlier and more quickly. The RMW Weekly Report (see web page below) will provide advice on changes to flow rates as they are implemented.

For more up to date river flow information, RMW flow forecasts (see web page below) will be extended to cover the next seven days and will be updated twice weekly or when there is a significant change.

Fig. 2: Euston, Torrumbarry and Stevens Weir Releases (Assuming Dry Conditions)



Closing dates for main irrigation systems

Both NSW and Victoria are currently planning an early end to the irrigation season for irrigation districts to ensure internal losses within the distribution systems remain within target levels.

Mulwala Canal and Wakool Canal

The current plan is to cease diverting water for irrigation on 28 February 2006. After this time only water for stock and domestic purposes will be diverted. RMW may also continue to transfer small volumes of water to the Edward River via the Mulwala Canal.

Yarrowonga Main Channel

The current plan is to cease diversions on 30 April, with possible extension to 15 May if conditions allow.

National Channel

The current plan is to cease diversions on 23 April, with possible extension to 15 May if conditions allow.

Outlook for May-June

The outlook for storages for May-June has not changed. In the event of continuing extreme dry conditions it is expected that all major reservoirs and the Lower Lakes could be at very low levels. There is an increased potential for significant drawdowns of weir pools in order to "store" as much water as possible for 2007/08 in Hume and Dartmouth. Such an operation would aim to minimise the draw on reservoirs by meeting downstream flow requirements using water held in weir pools. It is expected that winter tributary inflows could then be used to refill weir pools.

As part of dry inflow contingency planning an assessment is being undertaken of new minimum flow rates which could be implemented at the end of the irrigation season. The new minimum flow rates would be implemented to save water if extreme dry conditions persist.

RMW and State agencies understand that the extent and timing of any weir pool drawdowns and reductions to minimum flow targets will be particularly important to local communities. Weir pools located in the more intensely developed areas of the river will be lowered as last and as much notice as possible will be provided before proceeding.

Steven's Weir Pool on the Edward River is normally lowered at the end of the irrigation season. This year it is planned to maintain it near full for a longer period of time if conditions remain dry. The weir pool will then be gradually lowered over the winter months to assist in meeting downstream water requirements along the downstream reaches of the Edward and Murray Rivers.

Due to the effects of record low inflow and storage level conditions, current river operations are finely balanced and will be kept under constant review. It is possible that measures not previously experienced will be required to cope with this severe drought.

For further information

Please see the MDBC website at: www.mdbc.gov.au

The following information reports and updates can be found on the MDBC website:

MDBC Drought updates:

www.mdbc.gov.au/rmw/drought_updates

RMW Weekly Reports and Flow Forecasts:

www.mdbc.gov.au/rmw/river_information_centre

or contact Sam Leone, Communications Unit for further information on 0407 006 332

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	417.05	826	21%	80	746	-66
Hume Reservoir	192.00	3 038	165.26	84	3%	30	54	-17
Lake Victoria	27.00	677	24.12	357	53%	100	257	-29
Menindee Lakes		1 731 *		158	9%	(- -) #	0	-5
Total		9 352		1 425	15%	--	1 057	-117

* Menindee surcharge capacity 2050 GL

% of Total Active MDBC Storage = 12%

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		277	27%	3	274	-5
Blowering Reservoir	1 631		213	13%	24	189	-17
Eildon Reservoir	3 390		319	9%	100	219	-22

Snowy Mountains Scheme

Snowy diversions for week ending 06-Feb-2007

Storage	Active storage (GL)	Weekly change (GL)	Diversions (GL)	This week	From 1 May 2006
Lake Eucumbene - Total	515	-9	Snowy-Murray	+6	734
Snowy-Murray Component	331	-8	Tooma-Tumut	+0	56
Target Storage	1 460		Nett Diversion	6.4	678
			Murray 1 Release	+10	844

Major Diversions from Murray and Lower Darling (GL)

New South Wales	This week	From 1 July 2006
Murray Irrig. Ltd (Net)	4.7	292.0
Wakool System loss	1.0	45.0
Western Murray Irrig.	1.1	17.4
Licensed Pumps	2.0	137.3
Lower Darling	0.3	17.3
TOTAL	9.0	509.0

Victoria	This week	From 1 July 2006
Yarrawonga Main Channel (net)	10.0	285
Torrumbarry System + Nyah (net)	12.2	488
Sunraysia Pumped Districts	6.3	108
Licensed pumps - GMW (Nyah+u/s)	0.8	147
Licensed pumps - LMW	8.6	139
TOTAL	37.9	1 167

Flow to South Australia (GL)

Entitlement this month	194	
Flow this week	48.1	(6 900 ML/day)
Flow so far this month	48	
Flow last month	181	

Salinity (EC)

(microsiemens/cm @ 25° C)

	Current	Average over the last week	Average since 1 August 2006
Swan Hill	70	80	70
Euston	90	90	90
Red Cliffs	70	80	110
Merbein	100	100	100
Burtundy (Darling)	1 020	1 020	780
Lock 9	110	110	120
Lake Victoria	170	170	160
Berri	240	240	230
Waikerie	280	290	350
Morgan	310	310	370
Mannum	430	430	450
Murray Bridge	420	420	430
Milang (Lake Alex.)	1 450	1 420	1 220
Poltalloch (Lake Alex.)	1 310	1 320	1 040
Meningie (Lake Alb.)	2 530	2 540	2 270
Goolwa Barrages	4 800	4 910	2 230



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)				
River Murray							
Khancoban	-	-	-	460	F	1 570	890
Jingellic	4.0	1.10	207.62	800	F	1 150	1 140
Tallandoon (Mitta Mitta River)	4.2	3.30	220.19	10 060	S	10 030	10 010
Heywoods	5.5	2.78	156.41	13 140	S	12 940	11 540
Doctors Point	5.5	2.86	151.33	13 100	R	12 890	12 140
Albury	4.3	1.85	149.29	-	-	-	-
Corowa	7.0	2.69	128.71	12 700	S	12 430	11 220
Yarrowonga Weir (d/s)	6.4	1.48	116.52	8 330	F	8 440	7 670
Tocumwal	6.4	1.98	105.82	8 100	S	7 990	7 110
Torrumbarry Weir (d/s)	7.3	1.81	80.36	5 090	F	4 780	4 370
Swan Hill	4.5	0.97	63.89	4 120	R	3 650	4 830
Wakool Junction	8.8	2.29	51.41	5 040	R	5 280	6 650
Euston Weir (d/s)	8.8	1.10	42.94	5 020	F	5 690	6 950
Mildura Weir (d/s)	-	-	-	4 200	F	4 980	5 970
Wentworth Weir (d/s)	7.3	2.89	27.65	3 920	S	4 390	5 490
Rufus Junction	-	3.43	20.36	6 330	R	6 250	6 070
Blanchetown (Lock 1 d/s)	-	0.54	-	3 780	F	4 430	5 180
Tributaries							
Kiewa at Bandiana	2.7	0.47	153.70	50	F	60	130
Ovens at Wangaratta	11.9	7.38	145.06	21	S	20	30
Goulburn at McCoys Bridge	9.0	1.11	92.53	310	S	320	400
Edward at Stevens Weir (d/s)	-	1.53	81.30	1 380	F	1 340	1 570
Edward at Liewah	-	2.18	57.56	1 530	F	1 600	1 590
Wakool at Stoney Crossing	-	0.39	54.88	331	F	510	600
Murrumbidgee at Balranald	5.0	1.23	57.19	720	F	830	910
Barwon at Mungindi	-	3.17	-	15	S	30	60
Darling at Bourke	-	3.28	-	-	F	-	-
Darling at Burtundy Rocks	-	0.72	-	75	S	80	80

Natural Inflow to Hume (ie pre Dartmouth & Snowy Mountains scheme)	- 160	550
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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
Yarrowonga	124.90	-0.10	-	No. 7 Rufus River	22.10	+0.15	+1.11
No 26 Torrumbarry	86.05	+0.00	-	No. 6 Murtho	19.25	+0.01	+0.14
No. 15 Euston	47.60	-0.01	-	No. 5 Renmark	16.30	-0.01	+0.18
No. 11 Mildura	34.40	+0.01	+0.05	No. 4 Bookpurnong	13.20	+0.02	+0.63
No. 10 Wentworth	30.80	+0.00	+0.25	No.3 Overland Corner	9.80	-0.03	+0.17
No. 9 Kulnine	27.40	+0.05	+0.03	No. 2 Waikerie	6.10	+0.01	+0.12
No. 8 Wangumma	24.60	+0.03	+0.20	No 1. Blanchetown	3.20	-0.01	-0.21

Murrumbidgee	FSL (m AHD)	relation to FSL	d/s gauge ht.		Flow (ML/day)
			local (m)	(m AHD)	
No. 7 Maude	75.40	-1.76	0.89	70.24	643
No. 5 Redbank	66.90	-2.13	0.53	61.83	671



Lower Lakes

FSL = 0.75 m AHD

	(m AHD)
Lake Alexandrina average level for the past 5 days	0.38

Barrages

Fishways @ Barrages

	Openings	Level (m AHD)	Status	Rock Ramp	Vertical Slot
Goolwa	128 openings	0.45	All closed	-	Closed
Mundoo	26 openings	-	All closed	-	-
Boundary Creek	6 openings	-	All closed	-	-
Ewe Island	111 gates	-	All closed	-	-
Tauwichee	322 gates	0.40	All closed	Closed	Open

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