

REPORT FOR THE WEEK ENDING

Wednesday, 14 April 2004

Our Ref : RMW305/01/01/NG
Trim Ref : 04/4459DO

16 April, 2004



Dry Conditions

Virtually no rain fell across the Murray-Darling Basin this week. Tributary inflows across the upper River Murray continue to fall and are now extremely low – in some cases almost as low as at the height of the drought in early 2003. The Bureau of Meteorology has advised that the latest climate modelling results, together with an observed strong drop in the Southern Oscillation Index; suggest a “*somewhat increased risk of an El Niño developing this year*”. It should be noted, however, that it is difficult to predict across the autumn ‘predictability barrier’ from March to June, and updates will be provided progressively over the coming months.

Irrigation Demands Reduce

Irrigation demands are reducing considerably and corresponding reductions are now being made to regulated releases along the River Murray. Release from Yarrawonga Weir was reduced from 8500 to 7000 ML/day and is expected to be reduced further to about 6000 ML/day next week. Release from Hume Dam was reduced from 12 000 to 10 000 ML/day and may be further reduced next week.

Reduced diversions to National Channel over Easter resulted in a temporary rise in release from Torrumbarry Weir from about 4000 to more than 5000 ML/day, however this flow will reduce next week. River levels at Swan Hill have risen to about 1.0 m gauge height in response to the increase in release from Torrumbarry Weir, and are expected to steady next week at about this level before falling later in April if conditions remain dry.

Euston Weir Fishway

Following the refurbishment of the Euston Weir Fishway with fibreglass ‘Denil’ inserts, large numbers of fish have been reported to be successfully passing from downstream to upstream of the weir. The original fishway, constructed with the weir in 1935-1938, was shown not to be effective for Australian native fish; however, following refurbishment is now working very well. The recently constructed fishway at Weir & Lock 8 is also now moving large numbers of fish and the construction of fishways at Weir & Lock 7 and the Barrages are due for completion by July 2004.

Salinity Update

The success of operational actions undertaken to mitigate the recent salinity spike from the Darling River has been highlighted by a revised forecast for Morgan. Earlier preliminary forecasts showed Morgan salinities might reach about 900 EC, however the combined effects of a number of operational actions carried at the various river regulating structures from Euston Weir to Lock 7 and Lake Victoria have now reduced the estimated salinity peak at Morgan to a little over 600 EC (*see attached diagram*). Key operational changes included mixing the salt spike in Lake Victoria and the delivery of higher flow rates to South Australia early in April to assist dilution. Flow to South Australia has now been reduced and will average near 4200 ML/day for the remainder of the month.

Darling River

The Darling River peaked at Bourke early in the week at about 11 200 ML/day before rapidly receding to 4 000 ML/day. Flow at Wilcannia is currently peaking at about 9 000 ML/day and storage in Menindee Lakes has risen by 40 GL to a total of 300 GL.

DAVID DREVERMAN
General Manager



Yarrowonga Weir Access Road Closure

River Murray Water and Goulburn-Murray Water announced today that the temporary closure of the access road across Yarrowonga Weir planned for the 19th April 2004 has been postponed. The essential maintenance works are now planned to commence on Monday 26th April and will require the Yarrowonga Weir access road to be closed to all traffic for approximately 4 weeks.

Work is required for a major refurbishment of components of the weir flood gates. The weir access road will require closure to allow large crane access and rigging work.

The pedestrian walkway on the structure will however remain open during this period for pedestrians and cyclists.

River Murray Water and Goulburn-Murray Water apologise for any inconvenience the works may cause.

Further details in regard to the temporary closure should be directed to Goulburn-Murray Water's Yarrowonga office on (03) 5744 3137.

- E N D S -

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Date released: **16 April 2004**

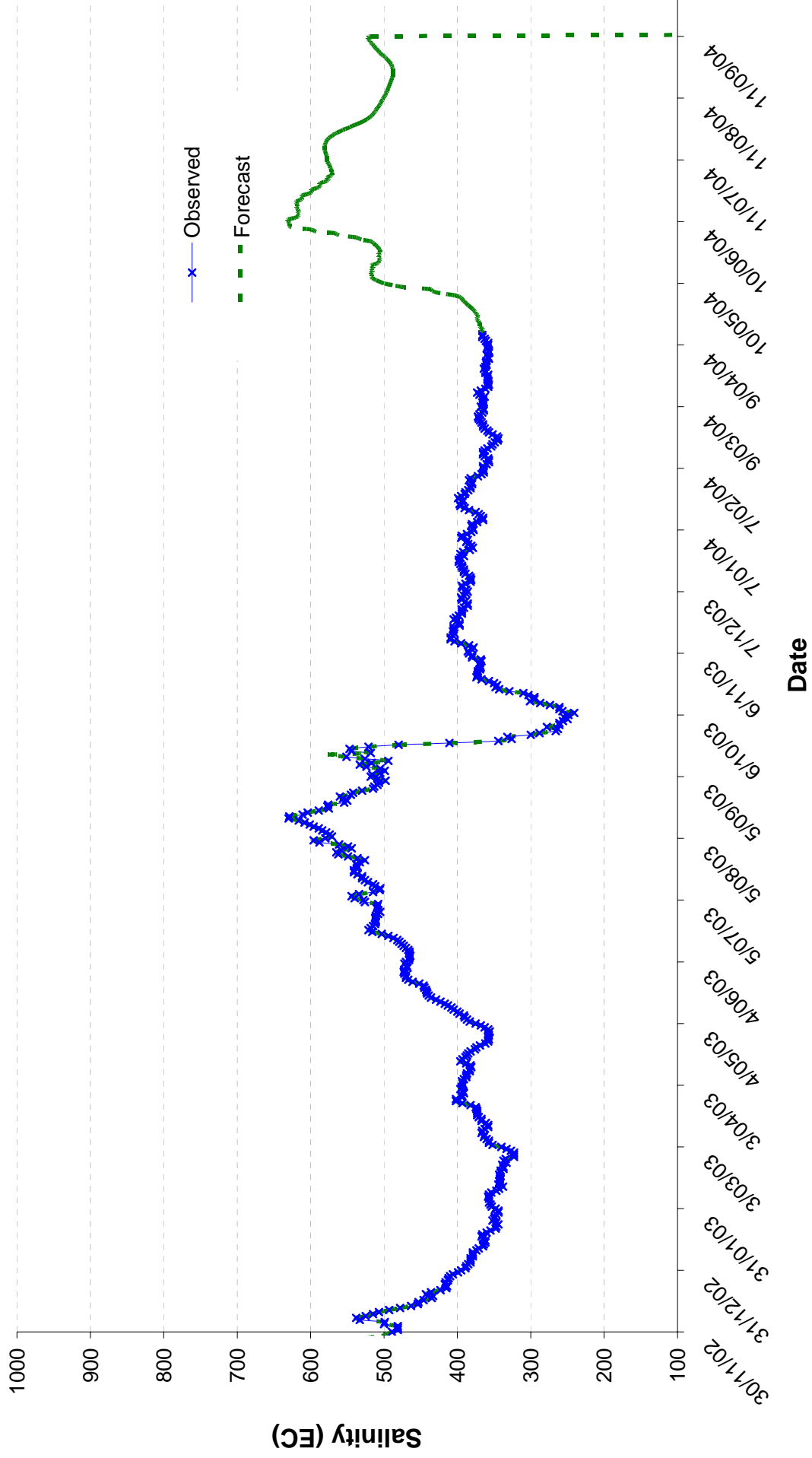
Author: Andrew Evans, A/Unit Engineer, Murray Headworks, Goulburn-Murray Water

Authorised by: David Dreverman, General Manager, River Murray Water

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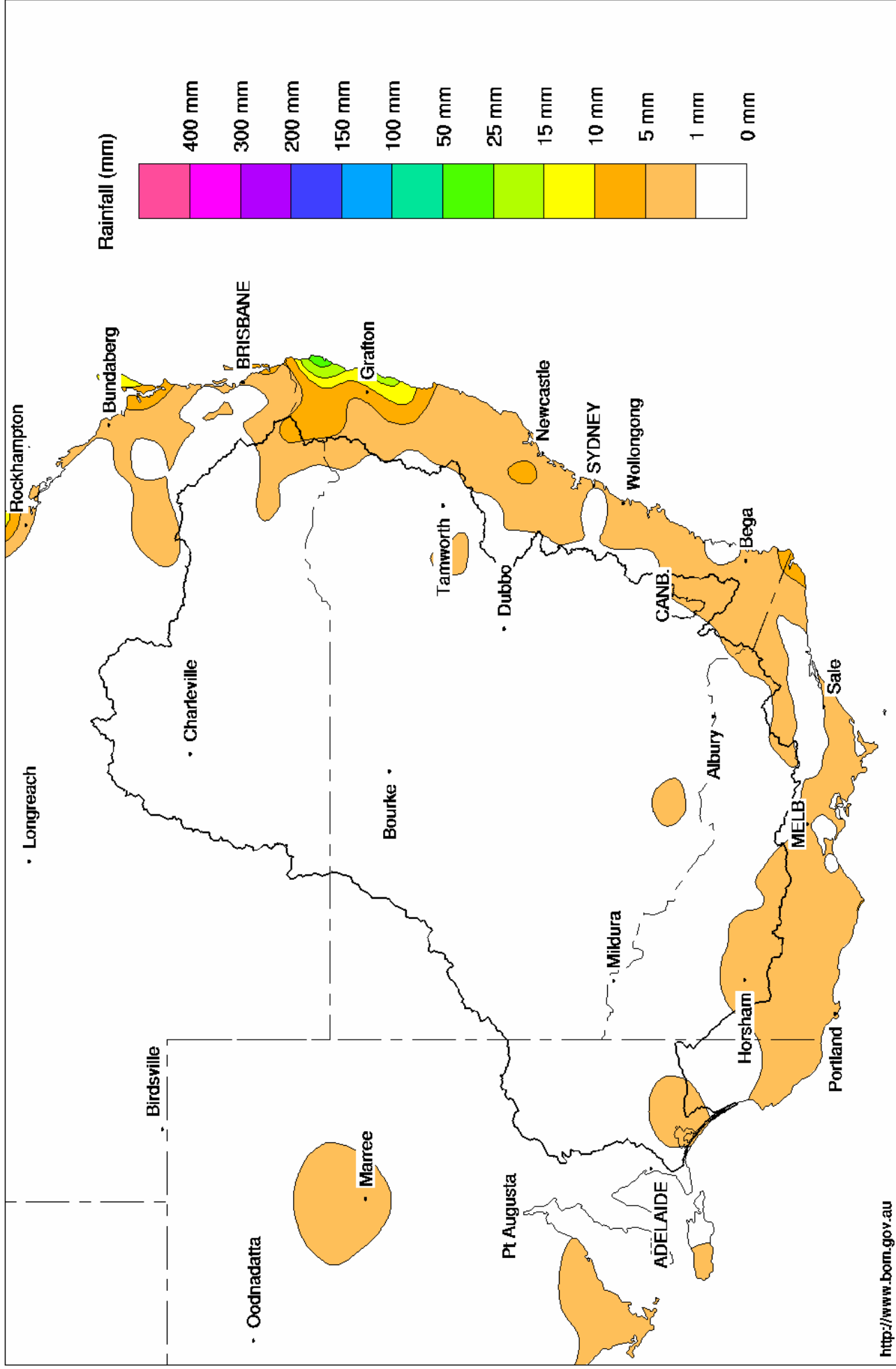
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Forecast for Morgan Salinity (15-04-2004)



Murray Darling Rainfall Analysis (mm) Week Ending 14th April 2004

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)	Active Storage (GL)	Change in Storage for the week (GL)
				(GL)	%			
Dartmouth Reservoir	486.00	3 906	447.31	1 832	47%	80	1 752	+0
Hume Reservoir	192.00	3 038	171.18	346	11%	30	316	-71
Lake Victoria	27.00	680	22.86	250	37%	100	150	-13
Menindee Lakes		1 603 *		299	19%	640 #	0	+38
Total		9 227		2 727	30%	850	2 218	-45

* Menindee surcharge capacity 1916 GL

% of Total Active MDBC Storage = **26%**

NSW Menindee Lakes Reserve

Major State Storages

Burrinjuck Reservoir	1 026	417	41%	3	414	-4
Blowering Reservoir	1 631	216	13%	24	192	-13
Eildon Reservoir	3 390	692	20%	100	592	-40

Snowy Mountains Scheme

Snowy diversions for week ending 13-Apr-2004

Storage	Active storage (GL)	Weekly change (GL)	Diversion (GL)	This week	From 1 May 2003
Lake Eucumbene - Total	1 825	-12	Snowy-Murray	+14	664
Snowy-Murray Component	997	-	Tooma-Tumut	+0	267
Target Storage	1 340		Nett Diversion	13.3	397
			Murray 1 Release	+6	992

Major Diversions from Murray and Lower Darling (GL)

New South Wales	This week	From 1 July 2003
Murray Irrig. Ltd (Net)	23.9	800.8
Wakool System loss	1.9	48.3
Western Murray Irrig.	0.5	27.5
Licensed Pumps	13.0	247.7
Lower Darling	0.2	14.6
TOTAL	39.5	1 139.0

Victoria	This week	From 1 July 2003
Yarrawonga Main Channel (net)	8.1	337
Torrumbarry System + Nyah (net)	15.3	543
Sunraysia Pumped Districts	1.8	145
Licensed pumps - GMW (Nyah+u/s)	1.1	43
Licensed pumps - SRW	2.9	185
TOTAL	29.2	1 253

Flow to South Australia (GL)

Entitlement this month	135	(4 000 ML/day)
Flow this week	28.3	
Flow so far this month	68	
Flow last month	191	

Salinity (EC)

(microsiemens/cm @ 25° C)

	Current	Average over the last week	Average since 1 August 2003
Swan Hill	100	100	100
Euston	120	110	120
Red Cliffs	120	120	130
Merbein	150	140	140
Burtundy (Darling)	370	370	2 170
Lock 9	160	160	180
Lake Victoria	280	280	240
Berri	310	330	270
Waikerie	320	320	370
Morgan	370	360	400
Mannum	420	410	440
Murray Bridge	470	480	480
Milang (Lake Alex.)	1 220	1 220	1 130
Poltalloch (Lake Alex.)	820	840	1 060
Meningie (Lake Alb.)	2 480	2 500	1 710
Goolwa Barrages	1 970	1 840	2 120



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	-	-	-	1 400	F	1 090	1 800
Jingellic	4.0	1.21	207.73	1 330	R	1 380	2 240
Tallandoon (Mitta Mitta River)	4.2	1.33	218.22	600	S	720	700
Heywoods	5.5	2.55	156.18	10 510	F	11 650	14 870
Doctors Point	5.5	2.67	151.14	10 000	F	11 830	14 590
Albury	4.3	1.68	149.12	-	-	-	-
Corowa	7.0	2.62	128.64	12 700	F	13 830	16 210
Yarrowonga Weir (d/s)	6.4	1.33	116.37	7 040	F	8 050	8 550
Tocumwal	6.4	1.90	105.74	7 970	F	8 810	9 030
Torrumbarry Weir (d/s)	7.3	1.83	80.38	5 120	F	5 010	4 210
Swan Hill	4.5	0.98	63.90	4 250	R	3 730	3 290
Wakool Junction	8.8	2.08	51.20	4 370	R	4 140	4 160
Euston Weir (d/s)	8.8	0.90	42.74	3 870	S	3 770	3 820
Mildura Weir (d/s)	-	-	30.85	3 290	F	3 080	3 090
Wentworth Weir (d/s)	7.3	2.82	27.58	2 940	S	2 850	2 890
Rufus Junction	-	2.97	19.90	3 600	R	3 410	5 200
Blanchetown (Lock 1 d/s)	-	-	-	3 830	S	3 900	3 880
Tributaries							
Kiewa at Bandiana	2.7	0.67	153.90	200	F	470	330
Ovens at Wangaratta	11.9	7.69	145.37	256	R	260	300
Goulburn at McCoys Bridge	9.0	1.19	92.61	433	R	400	440
Edward at Stevens Weir (d/s)	-	-	-	410	F	440	270
Edward at Liewah	-	0.90	56.28	435	F	570	900
Wakool at Stoney Crossing	-	0.43	54.92	359	S	300	200
Murrumbidgee at Balranald	5.0	0.55	56.51	269	S	260	300
Barwon at Mungindi	-	3.29	-	210	S	240	440
Darling at Bourke	-	4.55	-	3 908	F	7 920	10 660
Darling at Burtundy Rocks	-	0.80	-	305	F	330	370

Natural Inflow to Hume (ie pre Dartmouth & Snowy Mountains scheme)	750	860
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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	-0.04	-	No. 7 Rufus River	22.10	+0.17	+0.75
No. 26 Torrumbarry	86.05	+0.00	-	No. 6 Murtho	19.25	+0.01	+0.02
No. 15 Euston	47.60	-0.01	-	No. 5 Renmark	16.30	+0.02	+0.12
No. 11 Mildura	34.40	+0.06	+0.05	No. 4 Bookpurnong	13.20	+0.03	+0.42
No. 10 Wentworth	30.80	+0.03	+0.18	No.3 Overland Corner	9.80	+0.05	+0.17
No. 9 Kulnine	27.40	+0.03	-0.03	No. 2 Waikerie	6.10	+0.05	+0.10
No. 8 Wangumma	24.60	-0.02	+0.19	No 1. Blanchetown	3.20	+0.05	-0.23

Murrumbidgee	FSL (m AHD)	relation to FSL	d/s gauge ht.		Flow (ML/day)
			local (m)	(m AHD)	
No. 7 Maude	75.40	-0.25	0.66	70.01	355
No. 5 Redbank	66.90	-0.72	0.18	61.48	296

Barrages

FSL = 0.75 m AHD

	Openings	Level	Status
Goolwa	128 openings	0.58	All closed
Mundoo	26 openings	0.58	All closed
Boundary Creek	6 openings	-	All closed
Ewe Island	111 gates	-	All closed
Tauwichee	322 gates	0.57	All closed

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

