



RIVER MURRAY WEEKLY REPORT

FOR THE WEEK ENDING WEDNESDAY, 02 MARCH 2011

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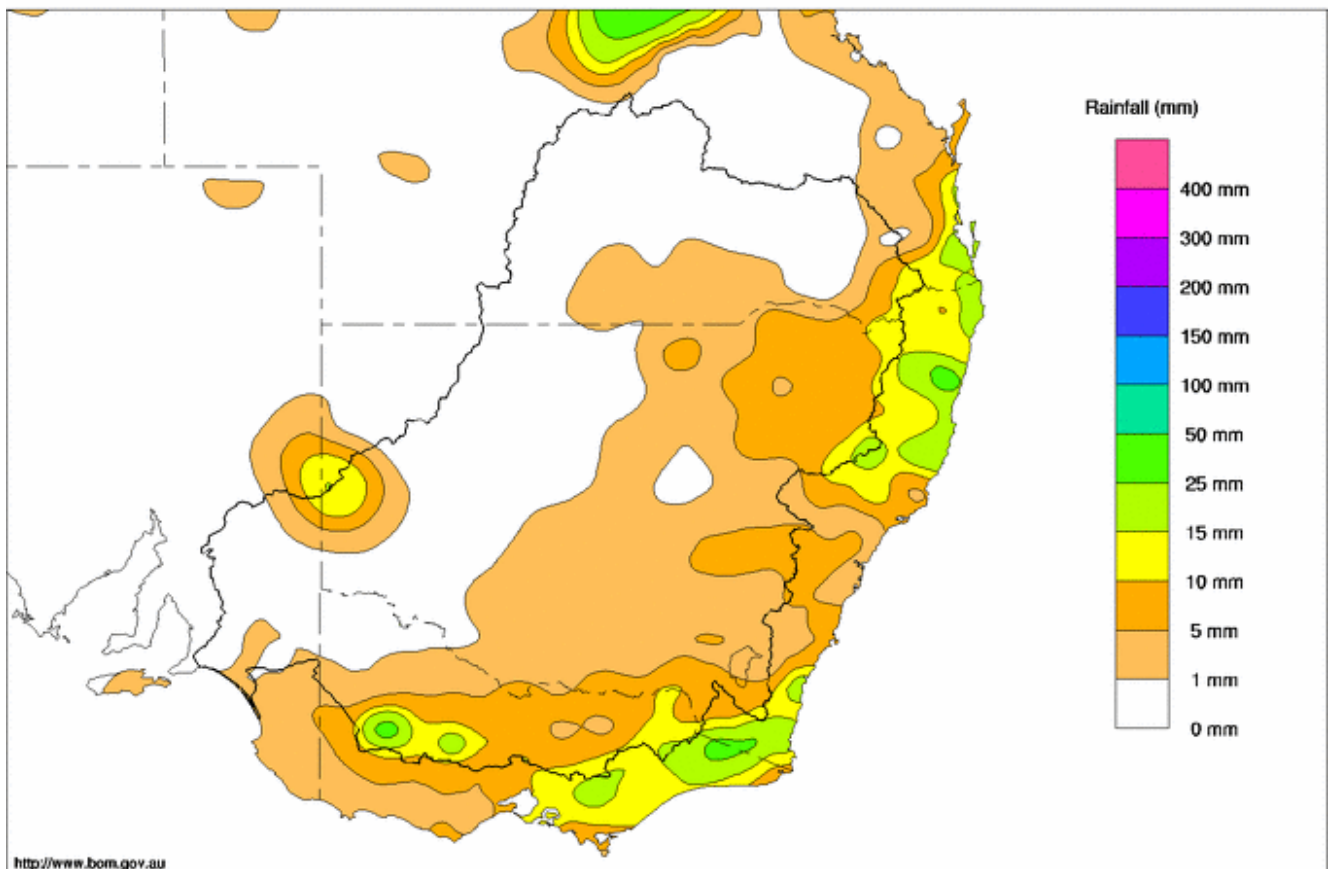
Rainfall and Inflows

A significantly drier week was experienced across the Murray-Darling Basin over the past week after several weeks of above average to record rainfall. Most of the Basin recorded less than 5 mm for the week and only a few isolated patches saw anything more significant (see Map 1). In western Victoria, Horsham picked up 51 mm, and further east, Maryborough recorded 25 mm. In the upper Murray tributaries falls were also light, with the highest totals being 24 mm at Granite Flat and 22 mm at Mt Hotham. Very little rain was recorded in the north of the Basin.

As a result, streamflows have been receding. For instance, at Hinnomunjie, on the Mitta Mitta River, in the last week the flow fell from 1,750 to 1,050 ML/day and at Wangaratta, on the Ovens River, the flow fell from 17,000 to 8,300 ML/day.

Upstream of Bourke in the Barwon and Culgoa Rivers, the flows have now fallen significantly and a slow recession is expected to continue at Bourke. At Wilcannia, on the Darling River just upstream of Menindee Lakes, the flow is now at 36,000 ML/day and the peak is expected to reach about 40,000 ML/day around mid March.

Murray Darling Rainfall Analysis (mm) Week Ending 2nd March 2011
Product of the National Climate Centre



<http://www.bom.gov.au>

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February 2011 Summary

The Bureau of Meteorology (BoM) has reported that rainfall totals in February for the Murray-Darling Basin were twice the average (10th highest on record) and South Australia's rainfall was the highest ever recorded; more than five times the February average (see Map 2).

BoM also reports that in the North Mallee district and in much of eastern Victoria, daily rainfall totals from 4–6 February were, at many stations, equivalent to what would fall over an entire average summer.

Murray system inflows (*excluding* Snowy releases and Darling inflows) for February were around 2,170 GL. The previous record for February inflows was 508 GL in 1911 and the long term average is 169 GL. Murray system inflows from 6-11 February alone were above the previous highest record for all of February.

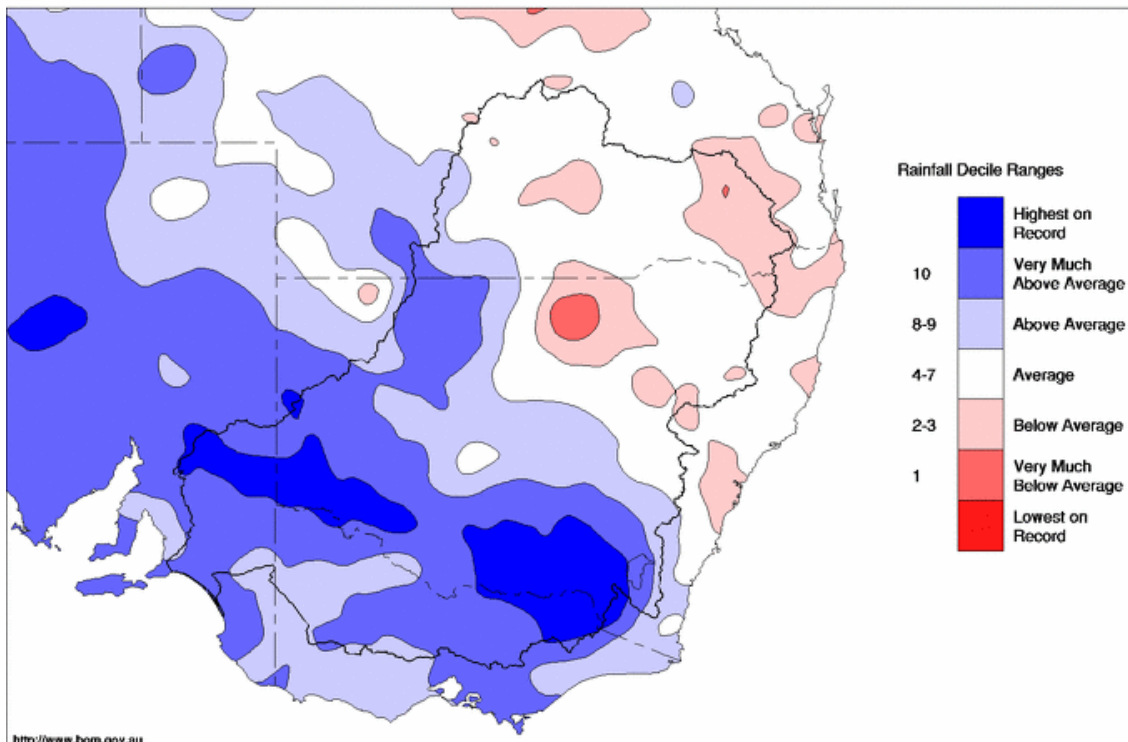
This is the third month in a row where inflows have significantly dwarfed previous records, and follows above average inflows for the spring of 2010. Murray system inflows for the last three months are the highest ever recorded and for the last six months are in the top 3%, meaning that for the spring/summer, only 3 in every 100 years would see inflows exceed those just observed.

For the Murray System *excluding* the Darling (which is more often influenced by high summer rain) inflows were about 6,400 GL or more than double the previous summer maximum of about 3,000 GL in 1993.

Murray System inflows over this summer *including* the Darling also sets a new maximum summer inflow record of about 8,700 GL compared with the previous record of about 7,100 GL in 1950-51. Considering the Darling by itself, this summer will be the third wettest on record in terms of inflows to Menindee Lakes.

These latest summer inflows contrast profoundly with the record low summer inflows in 2002-03 and 2006-07 of about 160 GL.

Murray Darling Rainfall Deciles February 2011
Distribution Based on Gridded Data
Product of the National Climate Centre



<http://www.bom.gov.au>



River Operations

MDBA active storage is now 6,726 GL down 44 GL since last week. At Dartmouth Reservoir, total storage has increased by 24 GL to 2359 GL (or 61% capacity) and the release remains at the normal minimum of 200 ML/day. At Hume Reservoir, the total storage decreased by 32 GL to 2953 GL (98% capacity). This is the highest volume stored for this time of year since the Hume Dam full supply level was raised in the 1950's.

Over the coming months, existing MDBA procedures can be expected to result in limited airspace being provided in Hume Reservoir for flood mitigation. These 'pre-release' procedures aim to balance the need for flood protection to downstream communities, particularly the cities of Albury / Wodonga, with the Reservoir's primary design function of safeguarding water security. Given the severe nature of recent rainfall and flooding events seen as a consequence of the current La Niña event, the Authority will continue to closely review the operation of Hume Reservoir taking into account Bureau of Meteorology outlooks and forecasts. During the week, release has been lowered from a target flow at Doctors Point of 25,000 to 23,400 ML/day and will be lowered further in the coming days.

At Yarrawonga Weir, the release is currently around 30,000 ML/day after a peak release during the week of 42,000 ML/day. Release is expected to around 15,000 ML/day by the end of next week.

On the Edward River at Deniliquin, the flow is now around 15,500 ML/day and gradually rising. At Stevens Weir the release is 11,500 ML/day and will also continue to gradually rise over the coming week to around 12,000 ML/day. At Kyalite, on the Wakool River, the flow rose from 29,700 to 31,500 ML/day during the week and is expected to continue to rise to around 35,000 ML/day in mid March.

At Swan Hill, on the Murray, the flow gradually fell during the week, from 28,000 to 27,100 ML/d. This gradual fall is likely to continue as flows from the Murray decline. There is still substantial amounts of water in the Kerang area from the January floods, which is adding to the flows past Swan Hill. Salinity at Swan Hill is currently 340 EC and reached around 370 EC which is the highest recorded level since October 2001 (406 EC), this increase is due to several factors including runoff from areas which have not been flushed for many years and also to inflows to the River Murray from highly saline lakes and lagoons which are normally disconnected but have been reconnected during the floods. Salinity levels may rise further as the higher flows decline throughout the mid and lower Murray.

Flows at Balranald, on the lower Murrumbidgee have been fairly steady over the week at around 12,000 ML/day are expected to fall slowly over the coming week. Downstream at Euston the flow has receded from 62,000 ML/day to 59,000 ML/day and in the short term, is expected to remain at around this level due to increased inflows to the River Murray from the Wakool River.

Total storage in Menindee Lakes fell by around 27 GL during the week to 1,612 GL (93% capacity). Release (measured at Weir 32) from Menindee Lakes is now around 34,000 ML/day, and is expected to continue to rise over the coming week as inflows into the lakes climb, releases are not expected to exceed 38,000 ML/day as in the coming weeks the Main Weir gates will be lowered to ensure the release stays below this flow and to begin the process of re-filling the lakes.

The level in Lake Victoria has begun to decline over the past week and is now at 25.25 m AHD (70% capacity). The flow to South Australia during the week averaged 81,500 ML/day and is slowly receding although it is expected to remain in the mid to high seventies over the coming weeks. The flow over Lock 1 is presently around 77,000 ML/day and rising. The level in the lower lakes is around +0.76 m AHD and will be slowly drawn down over the coming week (tides allowing).



Water Quality

Although dissolved oxygen levels are still low in the Murray and many of its tributaries downstream of the Barmah-Millewa Forest, there have been improvements in dissolved oxygen levels at many sites in the past few weeks.

The Murray-Darling Basin Authority is issuing regular water quality bulletins regarding the low dissolved oxygen levels and associated “blackwater” events that are still occurring across large areas of the Murray system. These bulletins are available early each week from the MDBA website (www.mdba.gov.au/water/blackwater).

For media inquiries contact the Media Officer on 02 6279 0141

DAVID DREVERMAN
Executive Director, River Murray



Week ending Wednesday 02 Mar 2011

Water in Storage

MDBA Storages	Full Supply Level (m AHD)	Full Supply Volume (GL)	Current Storage Level (m AHD)	Current Storage		Dead Storage (GL)	MDBA Active Storage (GL)	Change in Total Storage for the week (GL)
				(GL)	%			
Dartmouth Reservoir	486.00	3 856	459.71	2 359	61%	71	2 288	+24
Hume Reservoir	192.00	3 005	191.74	2 953	98%	23	2 930	-32
Lake Victoria	27.00	677	25.26	476	70%	100	376	-9
Menindee Lakes		1 731 *		1 612	93%	(480 #)	1 132	-27
Total		9 269		7 400	80%	--	6 726	-44

* Menindee surcharge capacity 2050 GL

% of Total Active MDBA Storage = **78%**

NSW takes control of Menindee Lakes when storage falls below 480 GL, and control reverts to MDBA when storage next reaches 640 GL

** All Data is rounded to nearest GL **

Major State Storages

Burrinjuck Reservoir	1 026	996	97%	3	993	+5
Blowering Reservoir	1 631	1 621	99%	24	1 597	-8
Eildon Reservoir	3 334	2 726	82%	100	2 626	+16

Snowy Mountains Scheme

Snowy diversions for week ending 01-Mar-2011

Storage	Active storage (GL)	Weekly change (GL)	Diversion (GL)	This week	From 1 May 2010
Lake Eucumbene - Total	1 179	+42	Snowy-Murray	+19	882
Snowy-Murray Component	453	n/a	Tooma-Tumut	+9	369
Target Storage	1 410		Net Diversion	10.9	514
			Murray 1 Release	+27	1 328

Major Diversions from Murray and Lower Darling (GL) *

New South Wales	This week	From 1 July 2010	Victoria	This week	From 1 July 2010
Murray Irrig. Ltd (Net)	11.8	416.0	Yarrowonga Main Channel (net)	4.6	58.0
Wakool Sys Allowance	0.0	3.0	Torrumbarry System + Nyah (net)	0.0	128.0
Western Murray Irrig.	0.6	10.0	Sunraysia Pumped Districts	1.4	41.0
Licensed Pumps	1.9	53.0	Licensed pumps - GMW (Nyah+u/s)	0.0	8.0
Lower Darling	11.8	244.0	Licensed pumps - LMW	5.0	216.0
TOTAL	26.1	726.0	TOTAL	11.0	451.0

* Figures derived from Estimates and Monthly Data. Please note that not all data may have been available at the time of creating this report.

** All Data is rounded to nearest 100 ML for the above**

Flow to South Australia (GL)

Entitlement this month	186.0 *	
Flow this week	570.4	(81 500 ML/day)
Flow so far this month	161.5	
Flow last month	2,410.7	

* Flow to SA will be greater than entitlement for March due to Additional Dilution Flow and Unregulated Flows.

Salinity (EC)

(microsiemens/cm @ 25° C)

	Current	Average over the last week	Average since 1 August 2010
Swan Hill	340	330	190
Euston	240	260	160
Red Cliffs	210	220	160
Merbein	290	300	160
Burtundy (Darling)	350	360	270
Lock 9	310	310	210
Lake Victoria	200	220	180
Berri	300	300	230
Waikerie	-	-	210
Morgan	450	1 660	340
Mannum	460	450	320
Murray Bridge	410	400	310
Milang (Lake Alex.)	470	490	1 980
Poltalloch (Lake Alex.)	350	360	1 220
Meningie (Lake Alb.)	7 000	7 340	9 100
Goolwa Barrages	460	460	5 670

Week ending Wednesday 02 Mar 2011

River Levels and Flows

River Murray	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)				
Khancoban	-	-	-	3 860	F	5 420	8 260
Jingellic	4.0	2.32	208.84	10 070	F	13 270	21 220
Tallandoon (Mitta Mitta River)	4.2	2.00	218.89	2 220	F	2 560	3 930
Heywoods	5.5	3.43	157.06	21 110	F	21 990	20 840
Doctors Point	5.5	3.81	152.28	23 400	F	24 860	25 250
Albury	4.3	2.92	150.36	-	-	-	-
Corowa	7.0	4.57	130.59	30 940	S	31 670	27 760
Yarrowonga Weir (d/s)	6.4	3.66	118.70	28 830	F	37 600	35 020
Tocumwal	6.4	4.91	108.75	36 390	F	38 270	34 890
Torrumbarry Weir (d/s)	7.3	6.13	84.68	25 720	F	26 760	29 360
Swan Hill	4.5	4.32	67.24	27 110	F	27 610	27 850
Wakool Junction	8.8	8.85	57.97	52 110	R	51 320	51 930
Euston Weir (d/s)	8.8	6.55	48.39	59 070	S	60 380	64 000
Mildura Weir (d/s)	8.3	-	-	58 850	F	59 020	-
Wentworth Weir (d/s)	7.3	7.04	31.80	77 000	F	78 880	83 580
Rufus Junction	-	7.77	24.70	80 490	F	81 480	85 270
Blanchetown (Lock 1 d/s)	-	4.19	-	77 300	R	75 370	69 230
Tributaries							
Kiewa at Bandiana	2.7	2.27	155.50	2 710	F	3 320	5 450
Ovens at Wangaratta	11.9	10.11	147.79	8 290	F	11 270	17 850
Goulburn at McCoys Bridge	9.0	2.80	94.22	3 420	F	7 140	9 190
Edward at Stevens Weir (d/s)	-	5.20	84.97	11 500	F	11 500	10 490
Edward at Liewah	-	5.23	60.61	7 730	R	7 410	6 570
Wakool at Stoney Crossing	-	6.47	59.96	24 060	S	23 600	23 210
Murrumbidgee at Balranald	6.7	5.89	61.85	12 100	F	12 360	12 300
Barwon at Mungindi	6.1	3.29	-	240	F	700	1 210
Darling at Bourke	9.0	11.69	-	59 970	F	71 580	86 530
Darling at Burtundy Rocks	6.1	7.03	-	17 860	S	17 830	17 790

Natural Inflow to Hume (ie pre Dartmouth & Snowy Mountains scheme)	19 020	38 780
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Weirs and Locks

Pool levels above or below Full Supply Level (FSL)

Murray	FSL (mAHD)	u/s	d/s		FSL (mAHD)	u/s	d/s
Yarrowonga	124.90	-0.16	-	No. 7 Rufus River	22.10	+2.68	-
No 26 Torrumbarry	86.05	-0.12	-	No. 6 Murtho	19.25	+0.75	+3.56
No. 15 Euston	47.60	+1.10	-	No. 5 Renmark	16.30	+0.69	+3.54
No. 11 Mildura	34.40	-	+3.58	No. 4 Bookpurnong	13.20	+1.48	+4.61
No. 10 Wentworth	30.80	-	+4.40	No.3 Overland Corner	9.80	+1.13	+4.62
No. 9 Kulnine	27.40	+1.10	+3.76	No. 2 Waikerie	6.10	+2.14	+4.87
No. 8 Wangumma	24.60	+1.95	-	No 1. Blanchetown	3.20	+1.13	+3.44

Murrumbidgee	FSL (m AHD)	relation to FSL	d/s gauge ht.		Flow (ML/day)
			local (m)	(m AHD)	
No. 7 Maude	75.40	-15.00	4	73.35	8814
No. 5 Redbank	66.90	-14.60	5.49	66.79	9670

Lower Lakes

FSL = 0.75 m AHD

	(m AHD)
Lake Alexandrina average level for the past 5 days	0.76

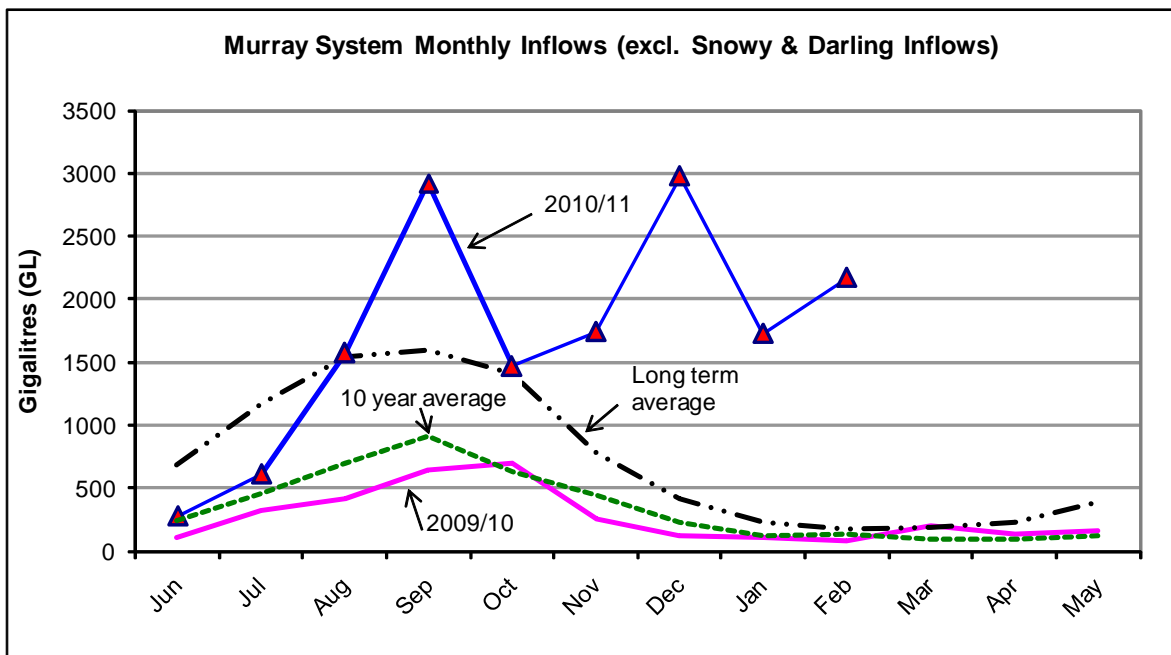
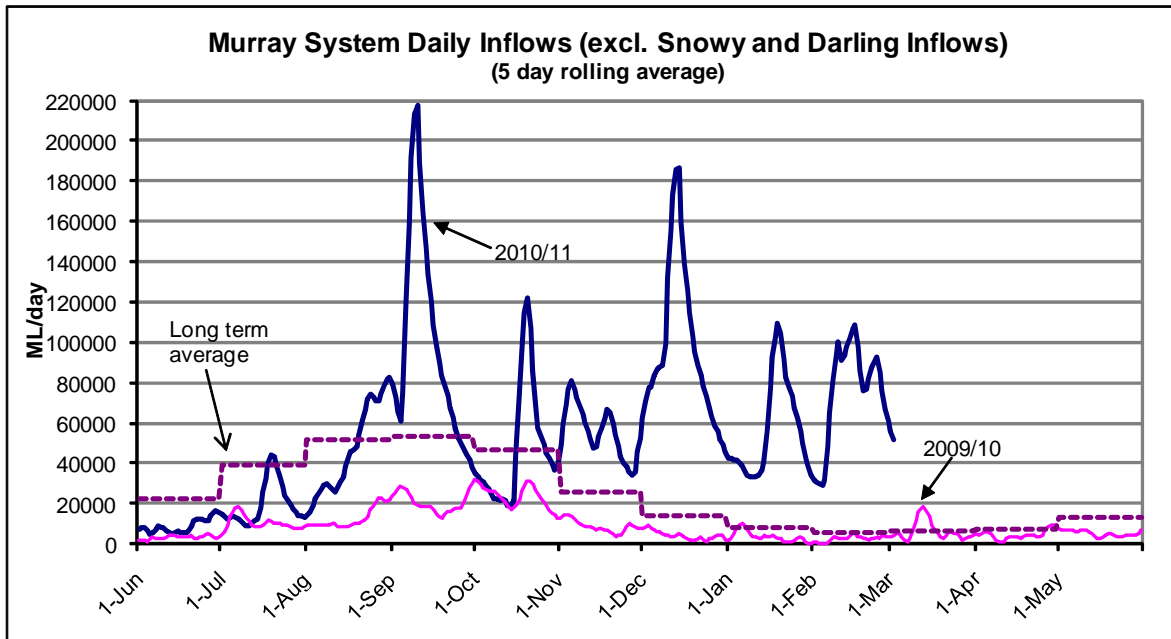
Barrages

Fishways @ Barrages

	Openings	Level (m AHD)	Status	Rock Ramp	Vertical Slot
Goolwa	128 openings	0.58	120	-	Open
Mundoo	26 openings	0.57	26	-	-
Boundary Creek	6 openings	-	6	-	-
Ewe Island	111 gates	-	80	-	-
Tauwichee	322 gates	0.77	170	Open	Open



Week ending Wednesday 2 March 2011



State Allocations (as at 2 March 2011)

NSW - Murray Valley

High security	100%
General security	100%

Victoria - Murray Valley

High reliability	100%
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NSW - Murrumbidgee Valley

High security	100%
General security	100%

Victoria - Goulburn Valley

High reliability	100%
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NSW - Lower Darling

High security	100%
General security	100%

South Australia - Murray Valley

High security	67%
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