



RIVER MURRAY WEEKLY REPORT

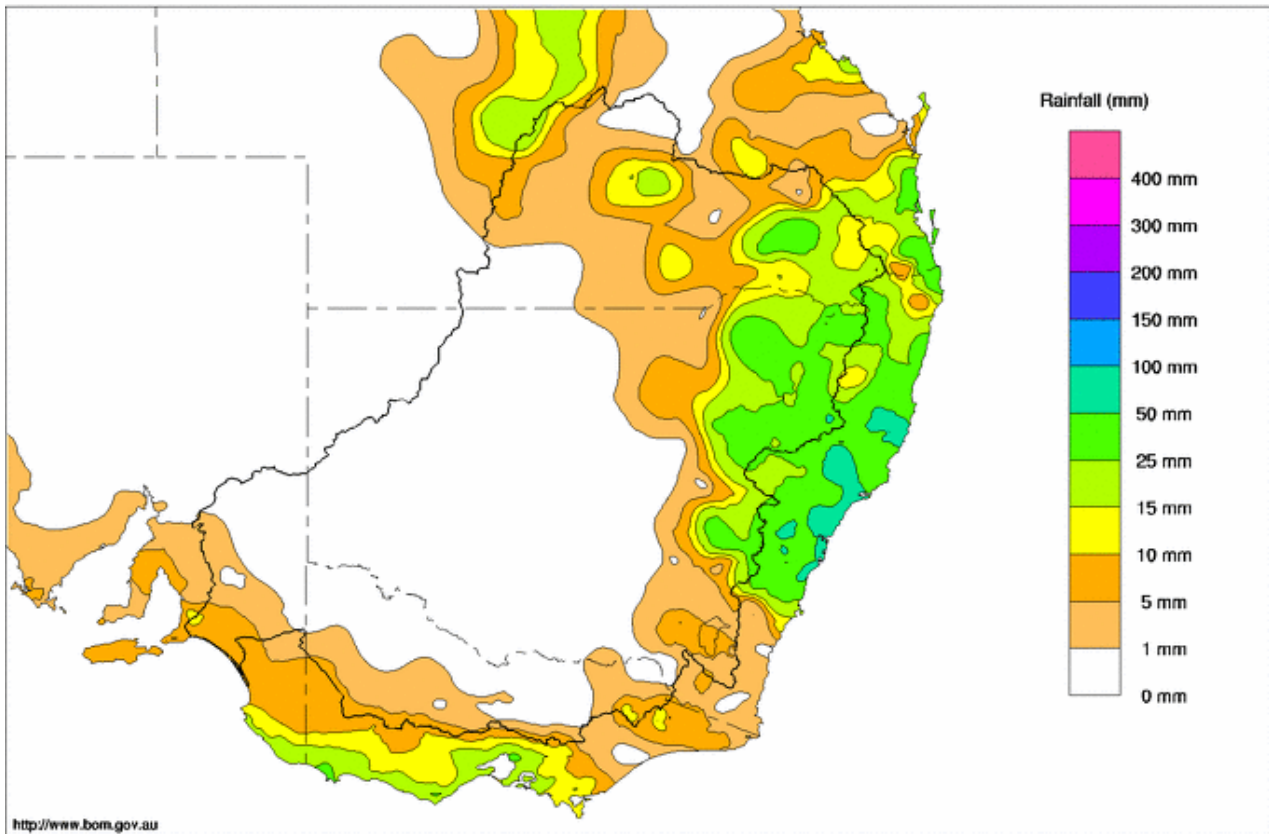
FOR THE WEEK ENDING WEDNESDAY, 6TH FEBRUARY 2013

Trim Ref: D13/5646

Rainfall and Inflows

There was further rain over the north-eastern NSW slopes and ranges and Queensland's Darling Downs this week as a trough generated a band of intense thunderstorms. The system also brought light rain to far southern and south-western areas, and to other parts of Queensland; while much of the central and western Murray-Darling Basin remained dry (Map 1). Some of the higher totals included 55 mm at Southwood, 44 mm at The Deep, 44 mm at Coonabarabran and 40 mm at Dunedoo.

Murray-Darling Rainfall Totals (mm) Week Ending 6th February 2013
Product of the National Climate Centre



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Issued: 06/02/2013

Map 1 - Murray-Darling Basin rainfall for the week ending 6 February 2013 (Source: Bureau of Meteorology).

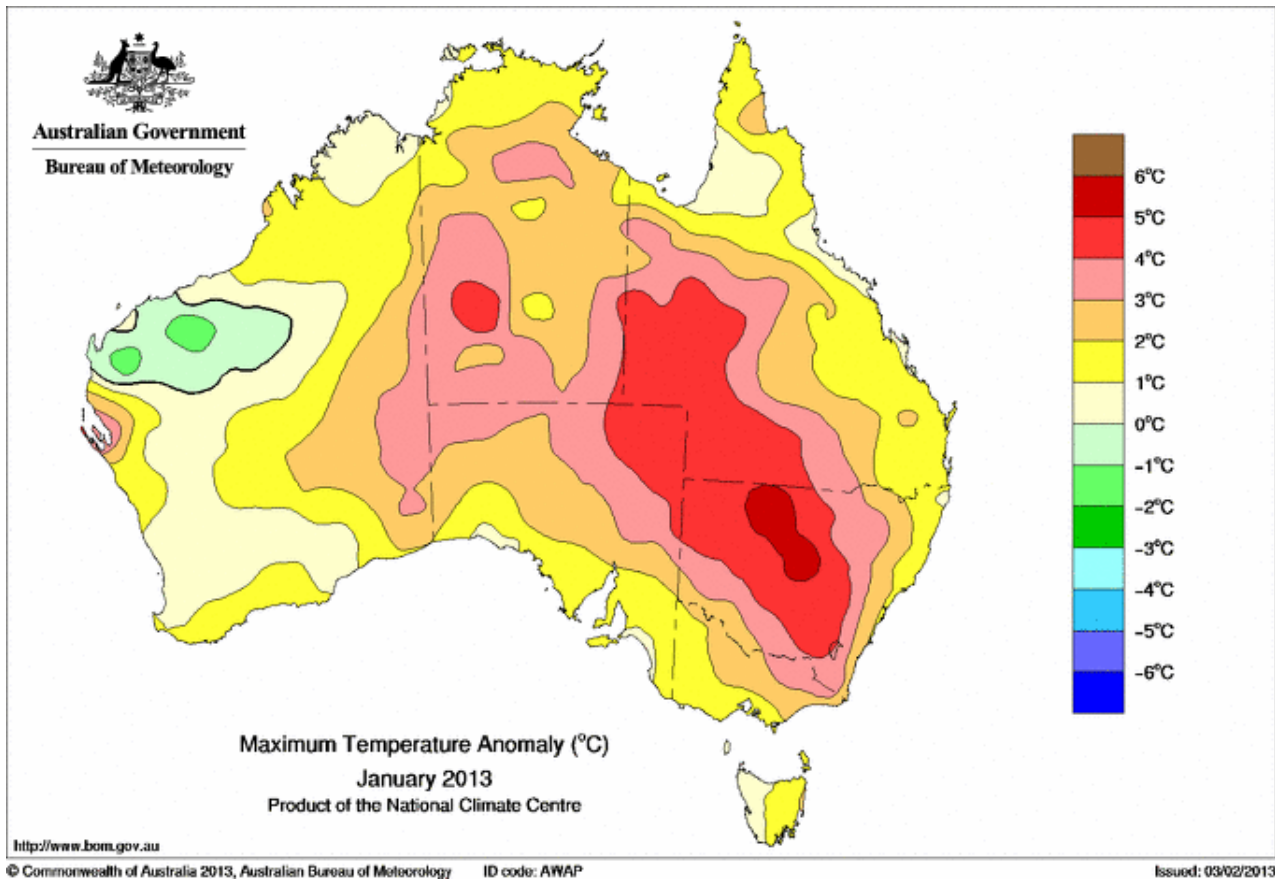
In the northern Basin, high flows and areas of flooding continue along several Barwon-Darling River tributaries following the previous week's heavy rain, with levels in the Barwon River now on the rise. In Queensland, a flood peak is now passing through the lower Condamine River and into the Balonne River with major flooding currently affecting Surat and Weribone. Further south, considerable volumes of flood water have passed along the Weir and Macintyre Rivers, with lesser flooding on the Moonie, Gwydir and Namoi River systems. The Bureau of Meteorology is warning that major flooding will affect the Barwon River at Mungindi and Mogil Mogil during the coming week. For more information regarding flood warnings, see the Bureau of Meteorology website at www.bom.gov.au.

There was very little rain across the upper Murray catchments this week and stream flows remain low. On the upper Murray, the flow at Biggara decreased from 700 to 500 ML/day. On the Ovens River, the flow has averaged only 200 ML/day at Rocky Point with the bulk of the water emanating from summer base flow releases at Lake Buffalo.



January 2013 Summary

January 2013 was, on average, the hottest month on record for Australia according to the Bureau of Meteorology and in relative terms, the Murray-Darling Basin experienced some of the worst of the heat. A prolonged heat wave extended from late December 2012 into the first three weeks of January 2013 and much of the Basin recorded January average maximum temperatures between 2 and 6 degrees Celsius above the long-term monthly mean (Map 2). The extremely hot conditions followed five months of relatively warm and dry weather in most areas and, as would be expected, there was high water demand and evaporation in the River Murray system and most other parts of the Basin.



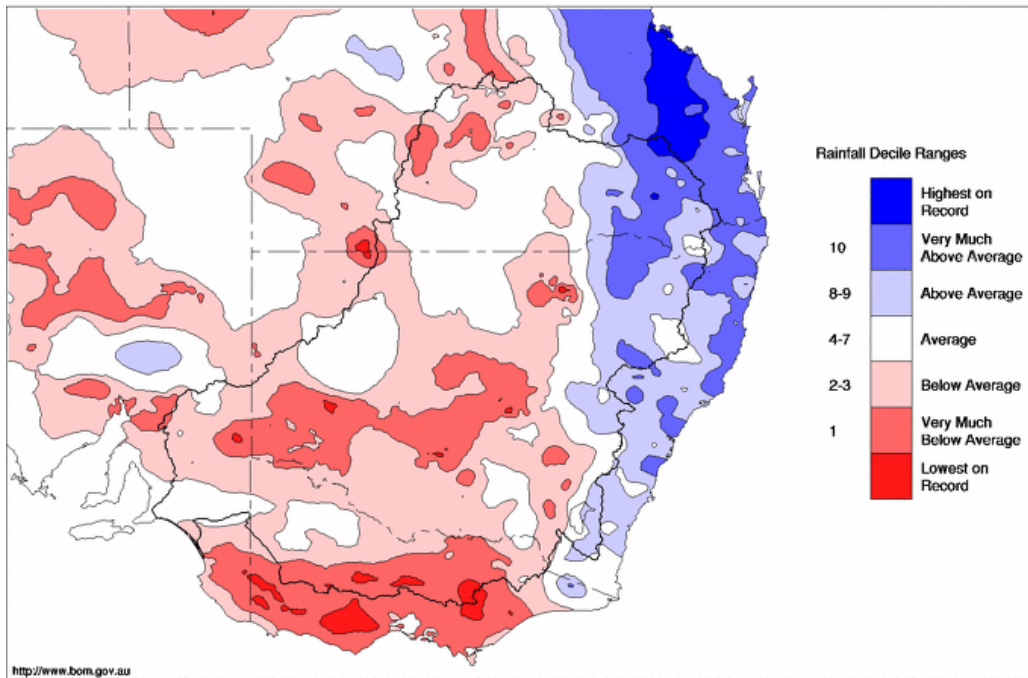
Map 2 - Maximum temperature anomaly for Australia in January 2013 (Source: Bureau of Meteorology).

Many locations within the Basin recorded their highest ever maximum temperature for January including Hay, Mungindi, Brewarrina, Wellington, Albury Airport, Yarrawonga, Tumbarumba and Canberra. Conditions were particularly hot across south-western Queensland and western NSW, where for example the maximum temperature at Bourke exceeded 35 degrees Celsius for 50 consecutive days during December and January. The average maximum temperature at Bourke for January was 40.6 degrees Celsius with the temperature reaching 48 degrees on two occasions.

Rainfall during January across the Murray-Darling Basin was a little below average, with the Bureau of Meteorology reporting an area-averaged total of 36.5 mm (34% below the mean). However the month again highlighted the considerable variability in conditions that can occur between different parts of the Basin. There were areas of record low rain in northern Victoria and western NSW where some sites received no rain at all for the month. In sharp contrast, there was very heavy rain late in the month across the north-eastern Basin as ex-Tropical Cyclone *Oswald* moved through the region. This system caused parts of the Condamine, Moonie, Border, Gwydir and Namoi River catchments to record 'very much above average' rainfall for January with some areas receiving 'highest on record' rain (Map 3). There are now floodwaters generated by this rain event affecting several Darling River tributaries.



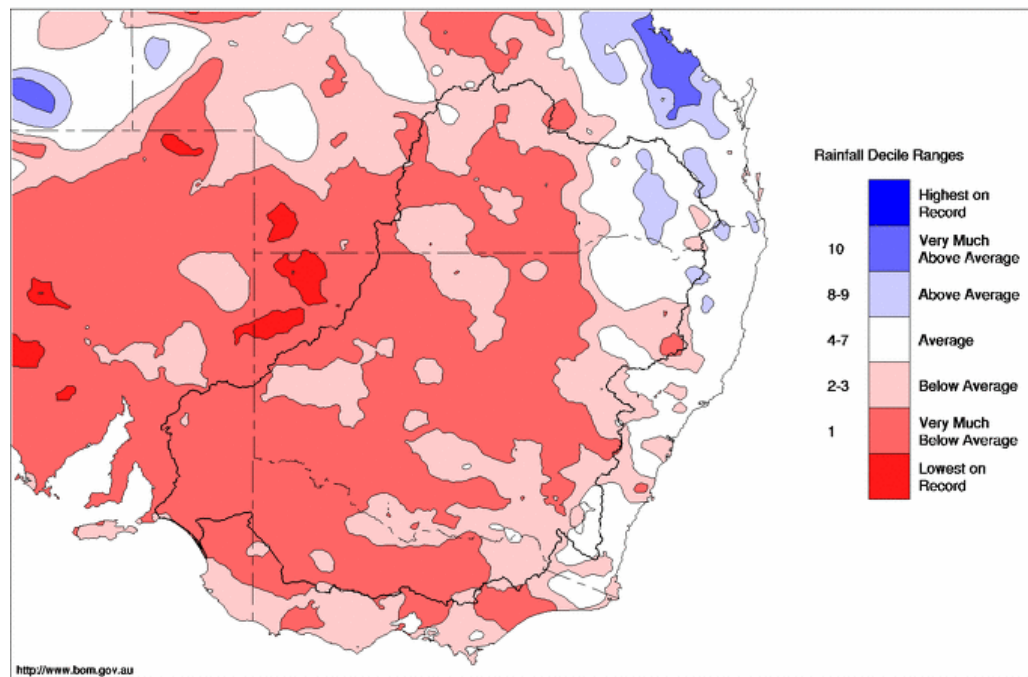
Murray-Darling Rainfall Deciles January 2013
Distribution Based on Gridded Data
Product of the National Climate Centre



Map 3 - Murray-Darling Basin rainfall deciles for January 2013 (Source: Bureau of Meteorology).
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Looking over a longer time frame, dry conditions have now continued across almost the entire Basin - apart from the eastern ranges - for at least 6 months. Most regions have received only 'very much below average' rainfall during this period (Map 4).

Murray-Darling Rainfall Deciles 1 August 2012 to 31 January 2013
Distribution Based on Gridded Data
Product of the National Climate Centre



Map 4 - Murray-Darling Basin rainfall deciles for August 2012 to January 2013 (Source: Bureau of Meteorology).
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Inflow to the River Murray system (excluding the Darling River and Snowy inflows) during January was about 130 GL. This inflow is lower than the long-term average of about 230 GL, but higher than many of the recent drought years such as 2007 and 2009 when January inflows dropped well below 100 GL.



River Operations

MDBA active storage decreased by 210 GL and is currently 6,277 GL, or 73% capacity.

At Dartmouth Reservoir, the storage volume decreased by 27 GL and is currently 3,754 GL (97% capacity). The release, measured at Colemans, was increased to 7,000 ML/day beginning 4 February. This release will be maintained until later this week when it will be decreased progressively towards 4,000 ML/day. Higher releases from Dartmouth are currently being undertaken as part of 'harmony' transfers between Dartmouth and Hume Reservoirs (Figure 1).



Figure 1 - The Mitta Mitta River downstream of Dartmouth Dam has been increased to a flow of 7,000 ML/day at Colemans. Photo - Peter Liepkalns, Goulburn-Murray Water.

At Hume Reservoir, the storage volume decreased by 100 GL to 1,789 GL (60% capacity). Releases were cut back slightly to match downstream demands. At Doctors Point, the flow averaged 17,600 ML/day during the week compared with 20,200 ML/day during the preceding week.

At Yarrowonga Weir, the Lake Mulwala pool level remained fairly steady this week and is currently 124.83 m AHD. Total demand at the irrigation offtakes eased further, with around 64 GL diverted for the week. The release downstream of Yarrowonga is now 9,000 ML/day and is expected to remain at about this rate during the days ahead.

On the Edward River, flow through the Edward River and Gulpa Creek offtakes this week has averaged around 1,600 and 350 ML/day respectively. Flow through the Edward River offtake is expected to be decreased to around 1,300 ML/day in the coming days to allow for an inspection of the Edward River's banks as it flows through the Millewa forest. At Stevens Weir, the flow is 700 ML/day and expected to remain fairly steady during the coming days. On the Wakool River at Stoney Crossing, the flow is currently fairly steady at around 300 ML/day and downstream at Kyalite the flow is estimated to be close to 1,000 ML/day.

On the Goulburn River, the flow at McCoys Bridge is 900 ML/day and rising. The flow is expected to keep increasing this week towards a target of around 2,000 ML/day. At Torrumbarry Weir, diversions through National Channel continue at around 3,150 ML/day and further potential increases have been



delayed until later in the month. Downstream of Torrumbarry Weir, the flow has remained fairly steady around an average of 4,800 ML/day.

On the Murrumbidgee River, the flow at Balranald has averaged 400 ML/day. Downstream on the River Murray at Euston Weir, the flow is currently 4,400 ML/day and receding slowly.

At Menindee Lakes, the total storage volume decreased by 44 GL to 1,039 GL (60% capacity). The release (measured at Weir 32) is currently 3,400 ML/day and will continue to slowly decrease over the coming weeks. At Burtundy, the flow has decreased to just below 3,500 ML/day.

On the River Murray, downstream of the Darling confluence, the flow at Wentworth Weir is currently 5,600 ML/day with the rate of recession slower than was expected last week. The flow may decrease to below 5,000 ML/day later in the coming week.

At Lake Victoria, the storage level is currently 24.24 m AHD (369 GL, 55% capacity) and falling, The flow into South Australia averaged 9,500 ML/day and is currently at 9,500 ML/day. The flow is expected to continue at this rate over the coming week. At the Lower Lakes, the five day average level is 0.63 m AHD with small releases through the Barrages continuing.

For media inquiries contact the Media Officer on 02 6279 0141

TONY MORSE

Acting Executive Director, River Management



Water in Storage

Week ending Wednesday 06 Feb 2013

MDBA Storages	Full Supply Level	Full Supply Volume (GL)	Current Storage Level	Current Storage		Dead Storage (GL)	Active Storage (GL)	Change in Total Storage for the Week (GL)
	(m AHD)		(m AHD)	(GL)	%			
Dartmouth Reservoir	486.00	3 856	484.43	3 754	97%	71	3 683	-27
Hume Reservoir	192.00	3 005	185.02	1 789	60%	23	1 766	-100
Lake Victoria	27.00	677	24.24	369	55%	100	269	-39
Menindee Lakes		1 731*		1 039	60%	(480 #)	559	-44
Total		9 269		6 951	75%	--	6 277	-210
Total Active MDBA Storage							73% ^	

Major State Storages

Burrinjuck Reservoir	1 026	392	38%	3	389	-9
Blowering Reservoir	1 631	1 157	71%	24	1 133	-61
Eildon Reservoir	3 334	2 798	84%	100	2 698	-51

* Menindee surcharge capacity – 2050 GL

** All Data is rounded to nearest GL **

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

^ % of total active MDBA storage

Snowy Mountains Scheme

Snowy diversions for week ending 05 Feb 2013

Storage	Active Storage (GL)	Weekly Change (GL)	Diversions (GL)	This Week	From 1 May 2012
Lake Eucumbene - Total	2 166	-22	Snowy-Murray	+3	562
Snowy-Murray Component	934	-10	Tooma-Tumut	+0	207
Target Storage	1 460		Net Diversion	3	355
			Murray 1 Release	+7	812

Major Diversions from Murray and Lower Darling (GL) *

New South Wales	This Week	From 1 July 2012	Victoria	This Week	From 1 July 2012
Murray Irrig. Ltd (Net)	52.4	1132	Yarrowonga Main Channel (net)	11.9	246
Wakool Sys Allowance	3.8	37	Torrumbarry System + Nyah (net)	21.8	334
Western Murray Irrigation	1.2	22	Sunraysia Pumped Districts	5	93
Licensed Pumps	7.1	170	Licensed pumps - GMW (Nyah+u/s)	1	30
Lower Darling	5.2	72	Licensed pumps - LMW	11.2	217
TOTAL	69.7	1433	TOTAL	50.9	920

* 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 above is rounded to nearest 100 ML for weekly data and nearest GL for cumulative data**

Flow to South Australia (GL)

* Flow to SA will be greater than normal entitlement for this month due to traded environmental water.

Entitlement this month	194.0 *
Flow this week	66.4
Flow so far this month	56.0
Flow last month	329.4

(9 500 ML/day)

Salinity (EC) (microSiemens/cm at 25° C)

	Current	Average over the last week	Average since 1 August 2012
Swan Hill	130	100	110
Euston	110	120	120
Red Cliffs	160	180	130
Merbein	200	200	140
Burtundy (Darling)	490	490	450
Lock 9	400	410	220
Lake Victoria	260	250	240
Berri	400	390	270
Waikerie	410	400	290
Morgan	390	410	280
Mannum	460	450	290
Murray Bridge	440	440	310
Milang (Lake Alex.)	490	480	400
Poltalloch (Lake Alex.)	500	470	310
Meningie (Lake Alb.)	3 530	3 530	3 430
Goolwa Barrages	870	940	1 440



River Levels and Flows

Week ending Wednesday 06 Feb 2013

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	-	-	-	4 280	F	1 110	1 340
Jingellic	4.0	1.74	208.26	5 270	R	2 730	2 750
Tallandoon (Mitta Mitta River)	4.2	2.95	219.84	7 150	R	4 070	2 200
Heywoods	5.5	3.23	156.86	16 710	S	17 320	19 830
Doctors Point	5.5	3.20	151.67	17 080	F	17 650	20 190
Albury	4.3	2.21	149.65	-	-	-	-
Corowa	3.8	3.45	129.47	17 170	F	17 930	19 390
Yarrawonga Weir (d/s)	6.4	1.59	116.63	9 600	S	9 640	9 140
Tocumwal	6.4	2.22	106.06	9 220	S	9 320	8 840
Torrumbarry Weir (d/s)	7.3	1.73	80.27	4 720	S	4 810	5 260
Swan Hill	4.5	1.06	63.98	4 740	R	4 570	5 160
Wakool Junction	8.8	2.29	51.41	5 230	R	5 400	5 780
Euston Weir (d/s)	8.8	0.98	42.82	4 390	F	4 610	4 580
Mildura Weir (d/s)	-	-	-	3 290	F	3 210	2 640
Wentworth Weir (d/s)	7.3	3.01	27.77	5 620	S	5 720	5 750
Rufus Junction	-	3.91	20.84	8 780	R	8 740	10 180
Blanchetown (Lock 1 d/s)	-	0.76	-	7 730	R	7 100	6 590
Tributaries							
Kiewa at Bandiana	2.7	0.72	153.95	240	F	260	280
Ovens at Wangaratta	11.9	7.76	145.44	350	S	340	370
Goulburn at McCoys Bridge	9.0	1.50	92.92	890	R	940	1 610
Edward at Stevens Weir (d/s)	-	0.94	80.72	700	F	710	790
Edward at Liewah	-	1.27	56.65	670	R	650	640
Wakool at Stoney Crossing	-	1.36	54.85	320	S	310	240
Murrumbidgee at Balranald	5.0	0.58	56.54	300	F	390	460
Barwon at Mungindi	-	6.85	-	12 150	R	3 710	330
Darling at Bourke	-	4.00	-	70	S	120	220
Darling at Burtundy Rocks	-	2.32	-	3 480	S	3 540	4 180

Natural Inflow to Hume	260	310
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(i.e. Pre Dartmouth & Snowy Mountains scheme)

Weirs and Locks Pool levels above or below Full Supply Level (FSL)

Murray	FSL (m AHD)	u/s	d/s		FSL (m AHD)	u/s	d/s
Yarrawonga	124.90	-0.07	-	No. 7 Rufus River	22.10	+0.11	+1.59
No. 26 Torrumbarry	86.05	+0.01	-	No. 6 Murtho	19.25	+0.03	+0.37
No. 15 Euston	47.60	-0.07	-	No. 5 Renmark	16.30	+0.05	+0.28
No. 11 Mildura	34.40	+0.02	+0.02	No. 4 Bookpurnong	13.20	-0.03	+1.16
No. 10 Wentworth	30.80	+0.04	+0.37	No. 3 Overland Corner	9.80	-0.01	+0.46
No. 9 Kulnine	27.40	+0.13	+0.59	No. 2 Waikerie	6.10	+0.04	+0.39
No. 8 Wangumma	24.60	+0.25	+0.11	No. 1 Blanchetown	3.20	+0.03	+0.01

Lower Lakes FSL = 0.75 m AHD

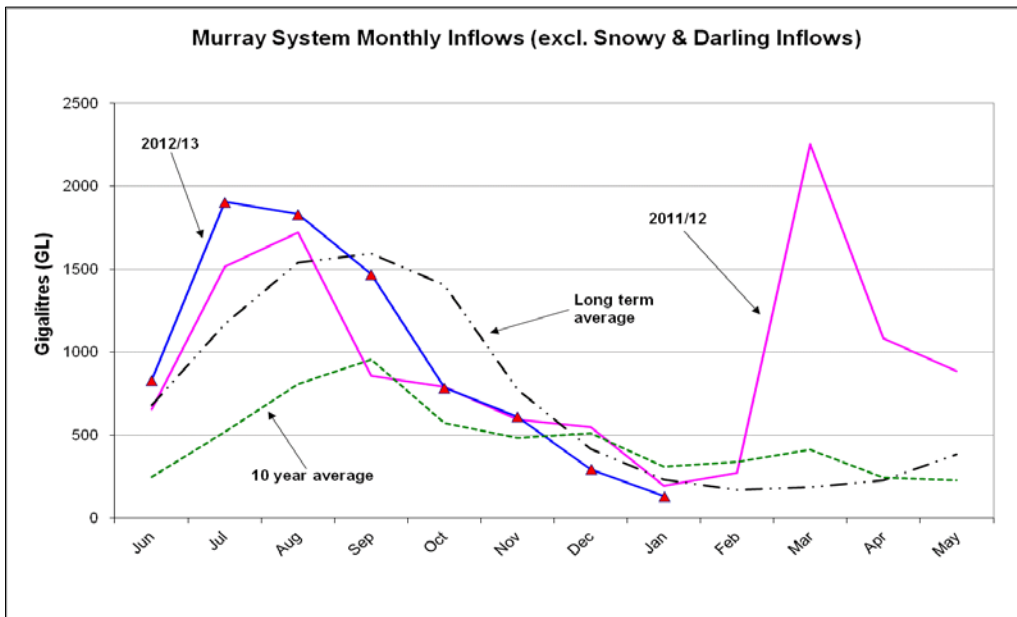
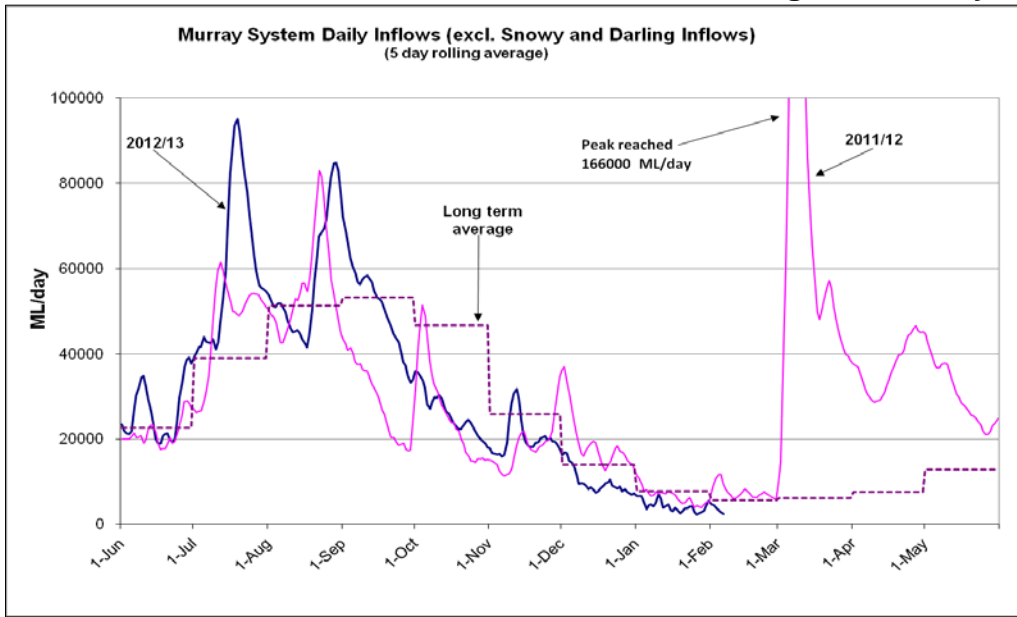
Lake Alexandrina average level for the past 5 days (m AHD)	0.63
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Barrages

Fishways at Barrages

	Openings	Level (m AHD)	No. Open	Rock Ramp	Vertical Slot
Goolwa	128 openings	0.65	1	-	Open
Mundoo	26 openings	0.64	0.2	-	-
Boundary Creek	6 openings	-	0.1	-	-
Ewe Island	111 gates	-	All closed	-	-
Tauwichee	322 gates	0.66	2	Open	Open

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



State Allocations (as at 06 Feb 2013)

NSW - Murray Valley

High security	100%
General security	100%

Victorian - Murray Valley

High reliability	100%
Low reliability	0%

NSW - Murrumbidgee Valley

High security	100%
General security	100%

Victorian - Goulburn Valley

High reliability	100%
Low reliability	0%

NSW - Lower Darling

High security	100%
General security	100%

South Australia - Murray Valley

High security	100%
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NSW : <http://www.water.nsw.gov.au/About-us/Media-releases/media/default.aspx>
 VIC : <http://www.g-mwater.com.au/water-resources/allocations/current.asp>
 SA : <http://www.waterforgood.sa.gov.au/category/news/>