



RIVER MURRAY WEEKLY REPORT

FOR THE WEEK ENDING WEDNESDAY, 04 FEBRUARY 2015

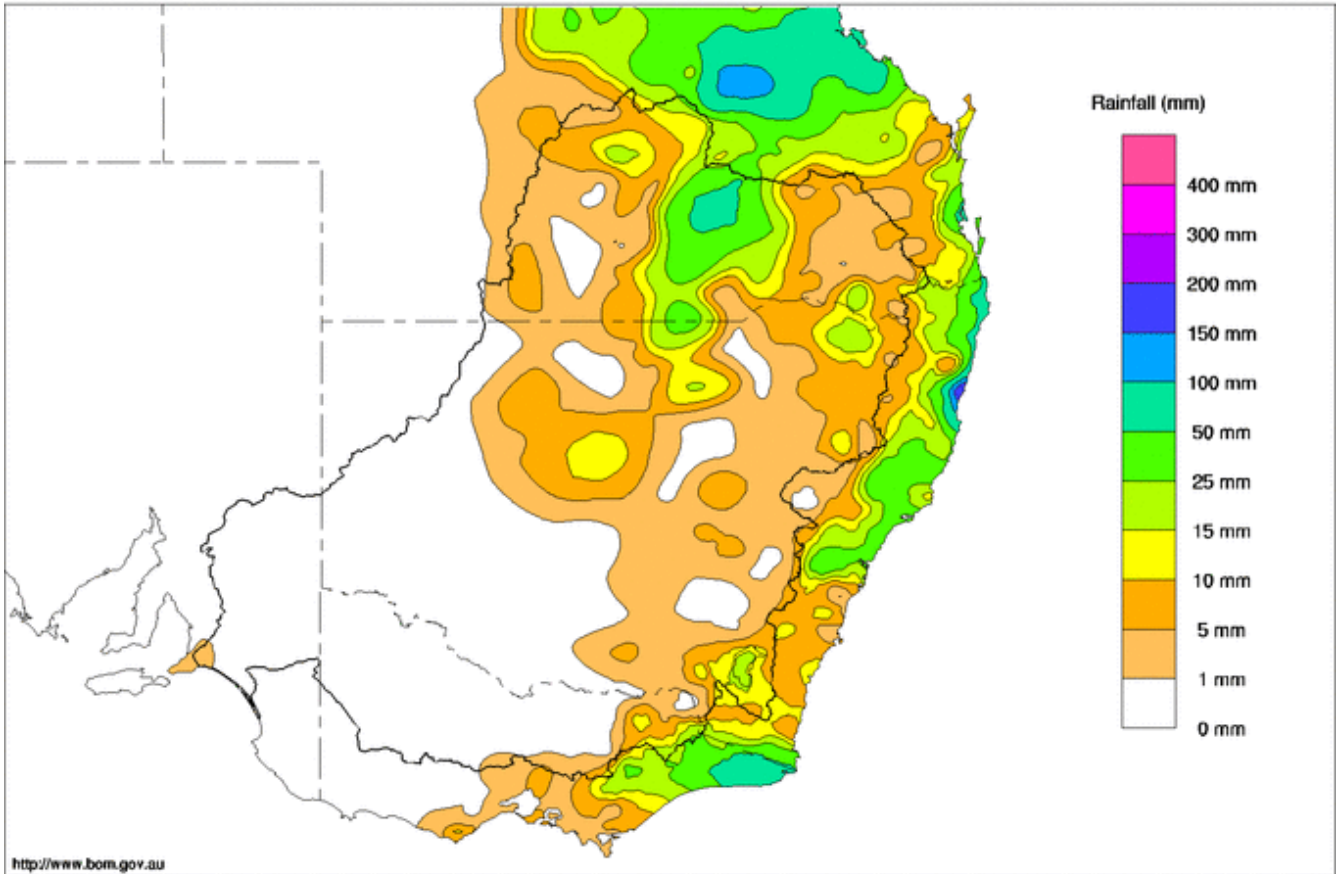
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Rainfall and Inflows

At the beginning of the week, a slow moving inland surface trough produced widespread moderate to heavy rainfall across southeast Queensland and across the tablelands of central New South Wales (Bureau of Meteorology). South Australia, Victoria and south west NSW remained mostly dry this week, see Map 1.

The highest rainfall totals were in Queensland with Dalmally receiving 63 mm, Karoola Park 52 mm and Surat 38 mm. In NSW, Goulburn received 29 mm, Batlow 17mm and Canberra 13 mm.

Murray-Darling Rainfall Totals (mm) Week Ending 4th February 2015
Australian Bureau of Meteorology



Map 1 – Murray Darling Basin rainfall week ending 4 February 2015 (Source: Bureau of Meteorology)

With low rainfall, tributaries in the upper catchments continued receding this week. On the Mitta Mitta River, the flow at Hinnomunjie Bridge receded to 230 ML/day. On the upper Murray, the flow at Biggara is 350 ML/day whilst on the Ovens River, the flow at Wangaratta is now 220 ML/day.

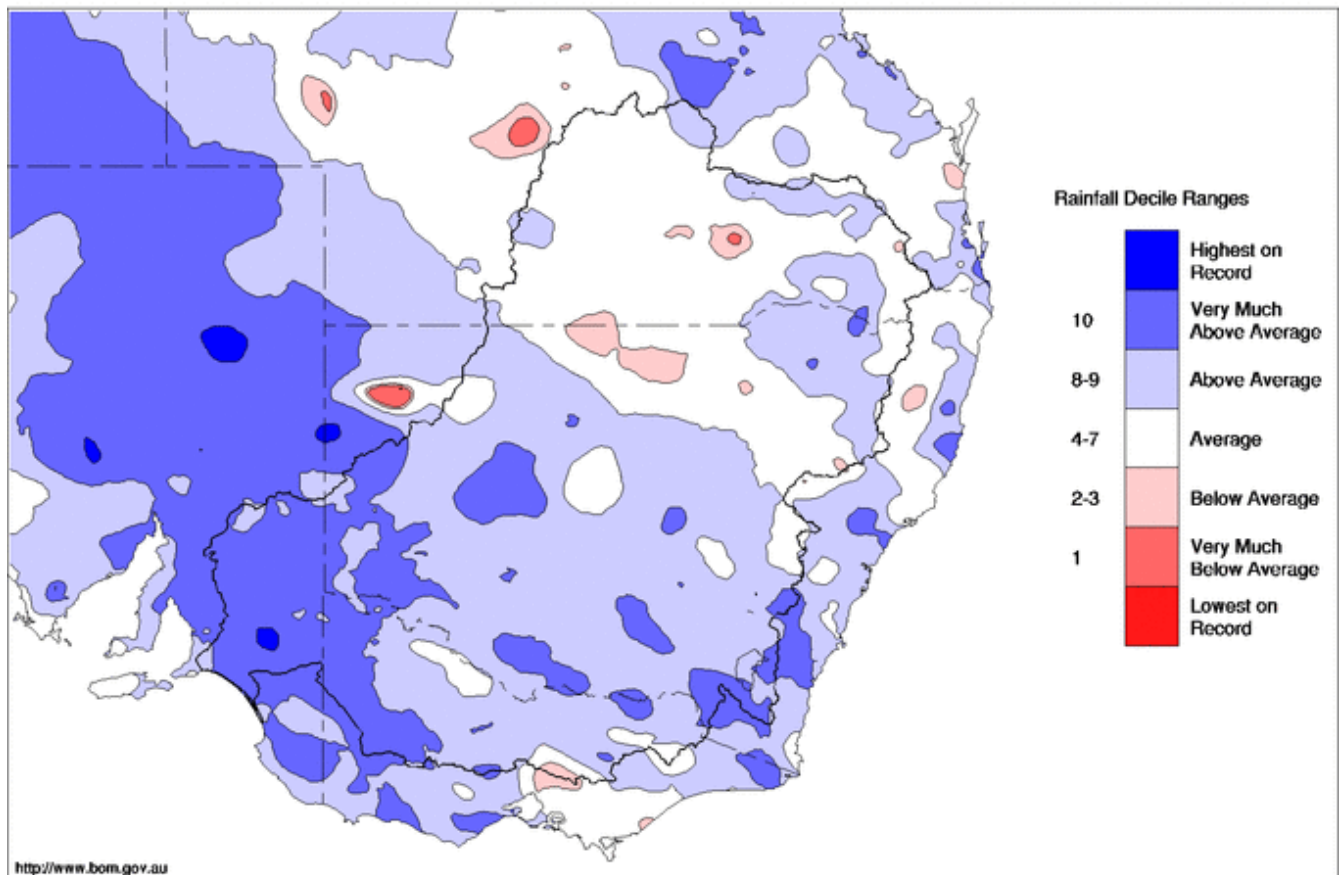


January 2015 Summary

January was a relatively wet month across most of the Murray-Darling Basin with low pressure troughs and moisture of tropical origin bringing storms and heavy rain on several occasions. Rainfall was particularly heavy across western and southern parts of the Basin; however parts of the northern basin largely missed out on the rain, with totals below the long-term average in central northern NSW and in outback southern Queensland (Map 2). Across the Basin as a whole, the Bureau of Meteorology has reported area-averaged rain totalling 65.9 mm, which is 20% above the long-term January mean.

Murray-Darling Rainfall Deciles January 2015

Distribution Based on Gridded Data
Australian Bureau of Meteorology



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Map 1 - Murray Darling Basin rainfall deciles for January 2015 (Source: Bureau of Meteorology).

In contrast to many recent months (and to January 2013 and 2014), temperatures across the Basin were close to the long-term average during January 2015, with a period of relatively cool summer weather a feature for many areas during the second half of the month.

Despite significant rain in the south-east, River Murray System inflows (excluding Snowy Scheme, Darling River and managed environmental inflows) were only around half the long-term January average at around 130 GL (see the graph on page 7). This was due to the preceding dry and very hot conditions during spring 2014 that had dried catchments and reduced subsequent stream flow responses. However, the inflow volume was greater than the system inflows of January 2014, which only totalled about 90 GL.

Estimated evaporation was less in January 2015 than December 2014 across the MDBA storages due to cooler temperatures and more rainfall on the storages. Menindee Lakes is estimated to have the highest evaporation volume for January with 27 GL, see Table 1.



Table 1: Monthly evaporation figures for MDBA storages

Storage	Approximate Evaporation in January 2015 (GL)	January average storage volume (GL)
Dartmouth	1	3171
Hume	11	1568
Menindee	27	162
Lake Victoria	18	467

River Operations

- Goulburn flows to increase this week towards 3,000 ML/day
- Lock 8 will be lowered to 0.5m below full supply level for February

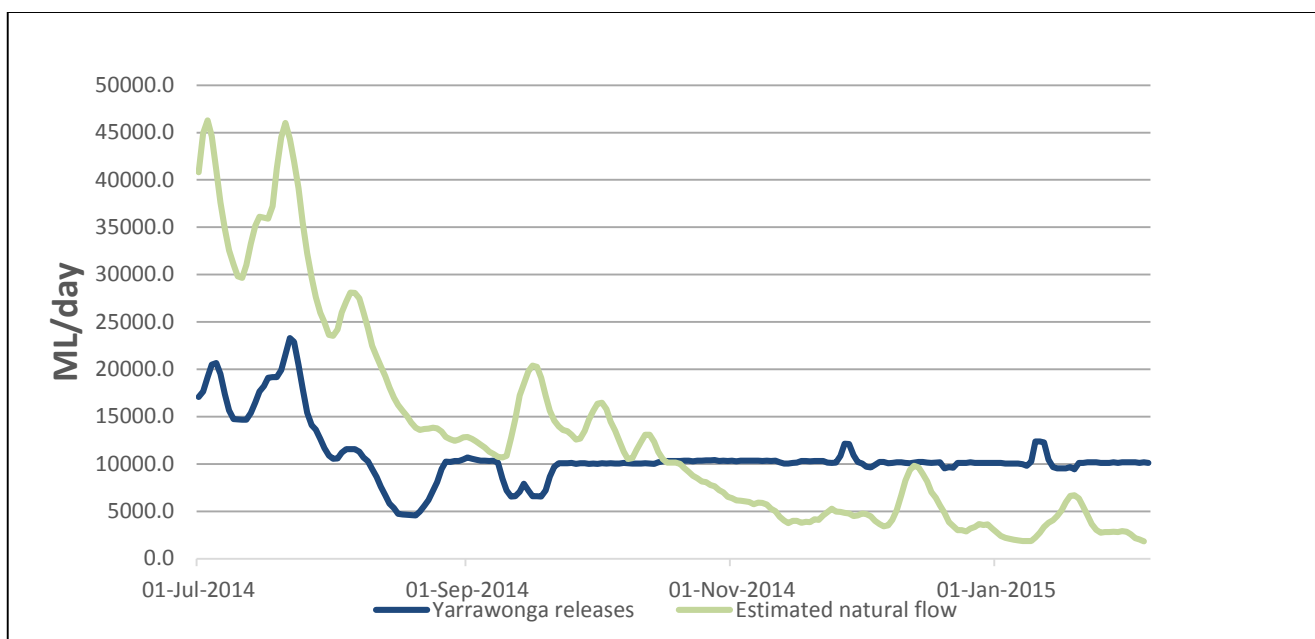
MDBA total storage decreased by 147 GL this week, with the active storage now 4,694 GL (56% capacity).

At **Dartmouth** Reservoir, storage decreased by 32 GL to 3,110 GL (81% capacity). Bulk transfers continue to Hume Reservoir with the release, measured at the Colemans gauge, increased earlier in the week from 3,500 ML/day to 4,500 ML/day. Flows will be reduced over the coming week to 4,000 ML/day.

At **Hume** Reservoir, the storage volume decreased by 83 GL to 1365 GL (45% capacity). The release averaged around 16,700 ML/day over the past week, and is currently around 17,000 ML/day.

At **Yarrowonga** Weir, diversions at the irrigation offtakes totalled around 36 GL compared with 55 GL this time last year. Even with the water diverted around the Barmah choke through Yarrowonga Main Channel and Mulwala Canal, releases at or close to maximum channel capacity have been necessary to meet downstream demands for much of the 2014-15 water year, see graph below. Releases are forecast to remain at channel capacity through to autumn if conditions are dry.

Figure 1. Yarrowonga releases downstream - actual versus estimated natural flow.





On the **Edward** River system, diversions at Edward Offtake and Gulpa offtakes averaged 1,930 ML/day for the week. Deliveries of water around the Barmah choke via the Edward River Escape averaged around 1,000 ML/day for the week. Wakool Main Canal orders have averaged around 1,100 ML/day and the flow downstream of Stevens Weir continues at around 2,100 ML/day.

On the **Goulburn** River at McCoys Bridge, the flow decreased from around 1,300 ML/day to 1,000 ML/day. The flow is expected to rise towards 3,000 ML/day over the coming week and comprises Inter Valley Trade and environmental water.

At **Torrumbarry** Weir, the diversion at National Channel has been steady at 2,400 ML/day. The flow downstream of the weir reduced during the week to 6,300 ML/day but is expected to be steady over this weekend when the Southern 80 ski race takes place.

On the lower **Murrumbidgee** River, the flow at Balranald reduced to around 700 ML/day and will continue to reduce back toward the normal February minimum of 180 ML/day in the coming week. Downstream on the Murray at **Euston**, the flow is now 8,300 ML/day and expected to fall to around 7,000 ML/day over the coming week.

At **Menindee** Lakes (currently managed by NSW), the total storage volume decreased by 8 GL over the past week to 138 GL (8% capacity). Releases from the lakes, measured at Weir 32, were steady at around 160 ML/day.

On the **Murray**, downstream of the Darling confluence, the flow at Wentworth Weir is forecast to decrease to around 6,000 ML/day this week.

Lock 8 will be lowered a further 25 cm to a total of 50cm below full supply level during February as part of the weir pool manipulation program to provide environmental benefit to riparian vegetation around the weir pool.

At **Lake Victoria**, the storage level has fallen to 24.67 m AHD (413 GL, 61% capacity). The flow into **South Australia** is currently targeting 9,400 ML/day and includes entitlement and environmental trade. At the Lower Lakes, the 5-day average level reduced 1 cm this week to 0.62 m AHD.

For media inquiries contact the Media Officer on 02 6279 0141

DAVID DREVERMAN
Executive Director, River Management



Water in Storage

Week ending Wednesday 04 Feb 2015

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	473.87	3 110	81%	71	3 039	-32
Hume Reservoir	192.00	3 005	181.91	1 365	45%	23	1 342	-83
Lake Victoria	27.00	677	24.67	413	61%	100	313	-24
Menindee Lakes		1 731*		138	8%	(- -) #	0	-8
Total		9 269		5 026	54%	- -	4 694	-147
Total Active MDBA Storage							56% ^	

Major State Storages

Burrinjuck Reservoir	1 026	513	50%	3	510	-44
Blowering Reservoir	1 631	528	32%	24	504	-0
Eildon Reservoir	3 334	2 373	71%	100	2 273	-55

* 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 03 Feb 2015

Storage	Active Storage (GL)	Weekly Change (GL)	Diversion (GL)	This Week	From 1 May 2014
Lake Eucumbene - Total	2 280	+1	Snowy-Murray	+0	222
Snowy-Murray Component	1 143	-7	Tooma-Tumut	+1	201
Target Storage	1 460		Net Diversion	-1	21
			Murray 1 Release	+3	477

Major Diversions from Murray and Lower Darling (GL) *

New South Wales	This Week	From 1 July 2014	Victoria	This Week	From 1 July 2014
Murray Irrig. Ltd (Net)	27.3	604	Yarrowonga Main Channel (net)	8.7	194
Wakool Sys Allowance	3.8	43	Torrumbarry System + Nyah (net)	16.4	429
Western Murray Irrigation	0.9	17	Sunraysia Pumped Districts	3.8	76
Licensed Pumps	5.5	176	Licensed pumps - GMW (Nyah+u/s)	1.8	45
Lower Darling	3.2	50	Licensed pumps - LMW	11.2	211
TOTAL	40.7	890	TOTAL	41.9	955

* 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 the delivery of additional environmental water.

Entitlement this month	194.0 *
Flow this week	67.6
Flow so far this month	38.4
Flow last month	266.5

(9 700 ML/day)

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

	Current	Average over the last week	Average since 1 August 2014
Swan Hill	60	90	90
Euston	100	100	100
Red Cliffs	120	120	120
Merbein	130	120	130
Burtundy (Darling)	470	570	780
Lock 9	110	110	140
Lake Victoria	210	200	210
Berri	210	210	220
Waikerie	280	280	290
Morgan	300	300	280
Mannum	330	330	340
Murray Bridge	350	360	370
Milang (Lake Alex.)	780	780	750
Poltalloch (Lake Alex.)	690	680	590
Meningie (Lake Alb.)	2 420	2 420	2 390
Goolwa Barrages	1 190	1 240	1 150



River Levels and Flows

Week ending Wednesday 04 Feb 2015

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	-	-	-	1 620	F	620	1 600
Jingellic	4.0	1.17	207.69	1 280	R	1 290	2 790
Tallandoon (Mitta Mitta River)	4.2	2.54	219.43	4 590	F	4 540	3 360
Heywoods	5.5	3.30	156.93	16 580	R	16 360	17 740
Doctors Point	5.5	3.18	151.65	16 960	R	16 690	18 620
Albury	4.3	2.23	149.67	-	-	-	-
Corowa	3.8	3.19	129.21	15 360	F	16 950	17 250
Yarrowonga Weir (d/s)	6.4	1.67	116.71	10 170	R	10 150	10 140
Tocumwal	6.4	2.28	106.12	9 610	S	9 540	9 560
Torrumbarry Weir (d/s)	7.3	2.18	80.73	6 280	F	6 610	7 650
Swan Hill	4.5	1.26	64.18	6 480	F	6 800	7 520
Wakool Junction	8.8	3.08	52.20	8 200	F	8 610	9 880
Euston Weir (d/s)	8.8	1.62	43.46	8 290	F	8 870	10 930
Mildura Weir (d/s)	-	-	-	-	-	-	-
Wentworth Weir (d/s)	7.3	2.85	27.61	7 690	R	8 310	9 220
Rufus Junction	-	3.82	20.75	8 580	F	8 920	9 420
Blanchetown (Lock 1 d/s)	-	0.81	-	5 430	R	6 210	6 710
Tributaries							
Kiewa at Bandiana	2.7	0.80	154.03	280	F	330	690
Ovens at Wangaratta	11.9	7.79	145.47	220	R	210	320
Goulburn at McCoys Bridge	9.0	1.52	92.94	1 000	F	1 110	2 020
Edward at Stevens Weir (d/s)	-	2.25	82.02	2 380	F	2 100	1 950
Edward at Liewah	-	2.57	57.95	2 000	R	1 840	2 030
Wakool at Stoney Crossing	-	1.49	54.98	560	F	600	710
Murrumbidgee at Balranald	5.0	1.09	57.05	700	F	980	1 870
Barwon at Mungindi	-	3.41	-	550	R	170	180
Darling at Bourke	-	4.02	-	110	F	170	90
Darling at Burtundy Rocks	-	0.67	-	50	S	70	130

Natural Inflow to Hume	300	1 760
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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
Yarrowonga	124.90	-0.11	-	No. 7 Rufus River	22.10	+0.03	+1.49
No. 26 Torrumbarry	86.05	+0.00	-	No. 6 Murtho	19.25	+0.04	+0.17
No. 15 Euston	47.60	+0.02	-	No. 5 Renmark	16.30	+0.03	+0.34
No. 11 Mildura	34.40	+0.03	+0.21	No. 4 Bookpurnong	13.20	+0.06	+0.98
No. 10 Wentworth	30.80	+0.07	+0.21	No. 3 Overland Corner	9.80	+0.02	+0.23
No. 9 Kulnine	27.40	-0.06	-0.20	No. 2 Waikerie	6.10	+0.02	+0.19
No. 8 Wangumma	24.60	-0.30	+0.16	No. 1 Blanchetown	3.20	-0.08	+0.06

Lower Lakes FSL = 0.75 m AHD

Lake Alexandrina average level for the past 5 days (m AHD)	0.62
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Barrages

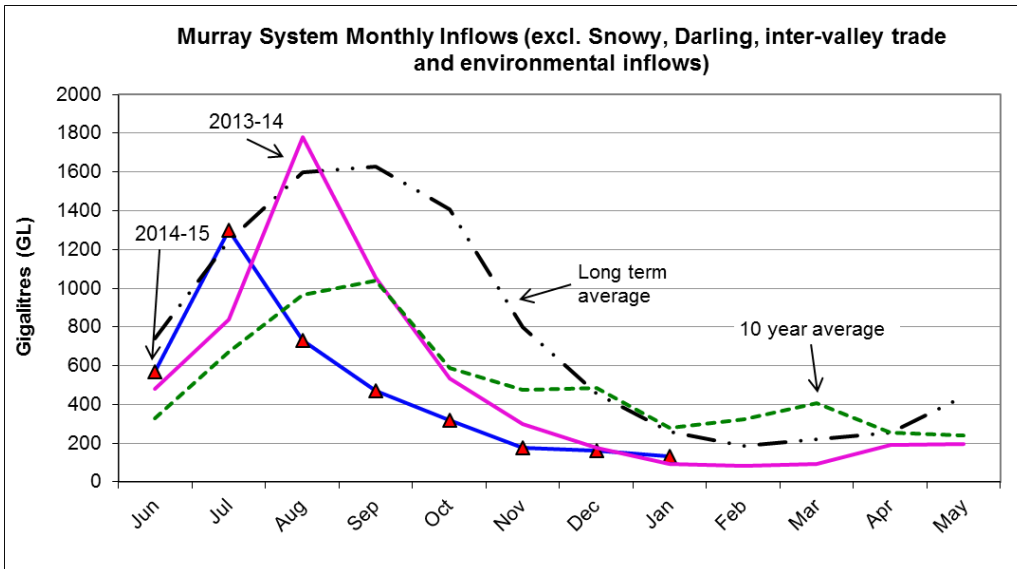
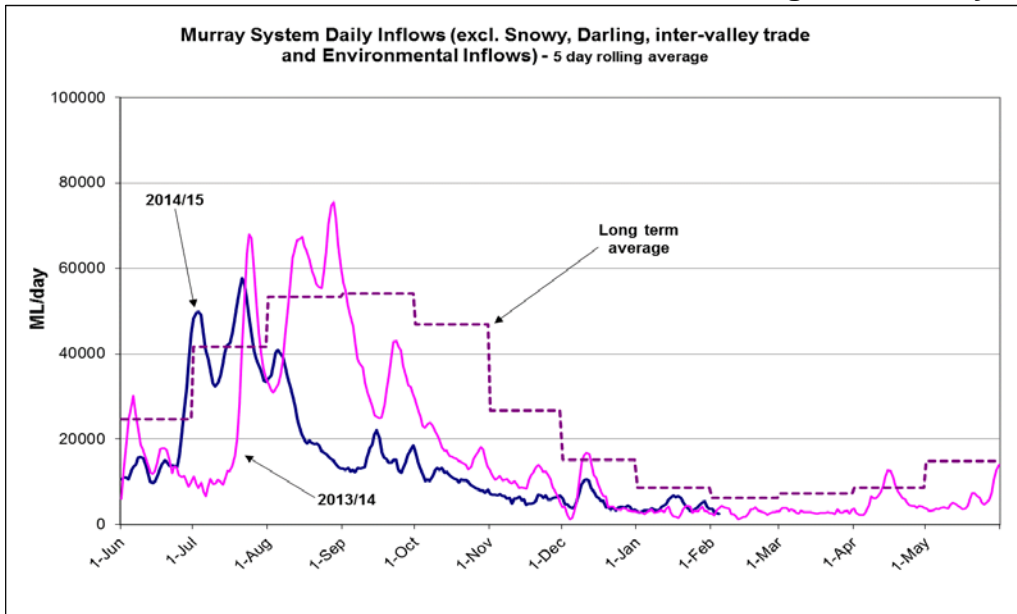
Fishways at Barrages

	Openings	Level (m AHD)	No. Open	Rock Ramp	Vertical Slot
Goolwa	128 openings	0.65	4	-	Open
Mundoo	26 openings	0.60	All closed	-	-
Boundary Creek	6 openings	-	0.1	-	-
Ewe Island	111 gates	-	All closed	-	-
Tauwichee	322 gates	0.61	8	Open	Open

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



Week ending Wednesday 04 Feb 2015



State Allocations (as at 04 Feb 2015)

NSW - Murray Valley

High security	97%
General security	53%

Victorian - Murray Valley

High reliability	100%
Low reliability	0%

NSW - Murrumbidgee Valley

High security	95%
General security	49%

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/Water-management/Water-availability/Water-allocations/Water-allocations-summary/water-allocations-summary/default.aspx>
 VIC : <http://www.nvrm.net.au/allocations/current.aspx>
 SA : <http://www.environment.sa.gov.au/managing-natural-resources/river-murray>