



# RIVER MURRAY WEEKLY REPORT

FOR THE WEEK ENDING WEDNESDAY, 4<sup>TH</sup> DECEMBER 2013

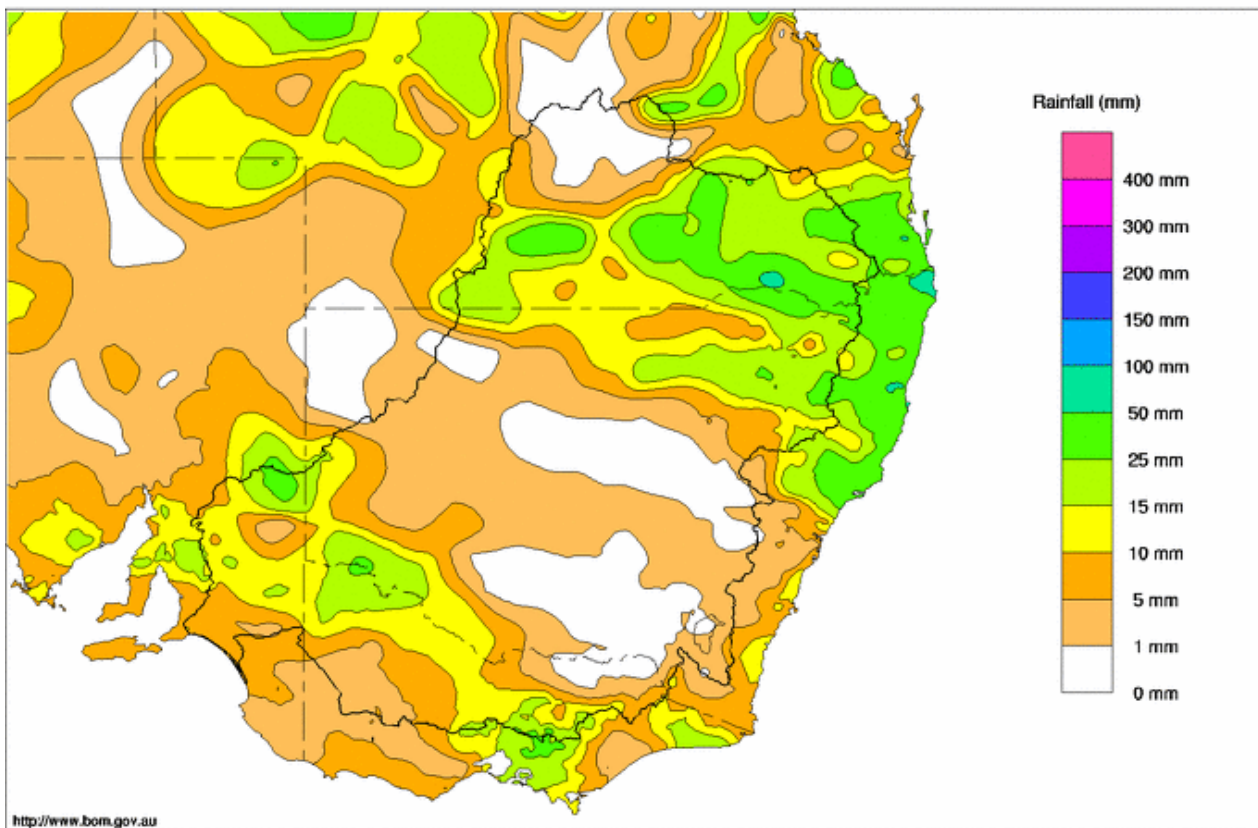
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## Rainfall and Inflows

Rain was recorded this week in the north and south of the Murray-Darling Basin (Map 1). A low pressure trough earlier in the week produced widespread moderate to heavy falls in southeast Queensland and northeast New South Wales (NSW). Another low pressure trough and front at the end of the week generated light falls in South Australia, Victoria and NSW.

Highest rainfall totals recorded in Queensland included 54 mm at Surat and 38 mm at Warroo in the Maranoa catchment, 45 mm at Goondiwindi and Oakey in the Darling Downs and 44 mm at Rosehill and Woodlands in the Warrego catchment. Further south in NSW, 53 mm was recorded at Armidale Airport AWS in the northern tablelands, 22 mm at Hungerford in the upper west, 23 mm at Perisher Valley AWS in the Snowy Mountains and 29 mm at Wentworth in the lower west. In Victoria 25 mm was recorded at Mildura and 23 mm in Redcliffs in the Mallee, and 24 mm at Mount Buller AWS in the northeast.

Murray-Darling Rainfall Totals (mm) Week Ending 4th December 2013  
Product of the National Climate Centre



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Issued: 04/12/2013

Map 1 - Murray-Darling Basin rainfall for the week ending 4 December 2013 (Source: Bureau of Meteorology).

During the week there was little change in upper Murray System stream flows with most tributaries receding slightly. However, good falls of rain on Wednesday 4 December and into Thursday 5 December have resulted in increased flows. As at Thursday 5 December, on the Mitta Mitta River, the flow at Hinnomunjie Bridge increased from around 400 ML/day during the week to a peak of around 3,500 ML/day. On the upper Murray, the flow at Biggara increased from around 700 ML/day to a peak of around 2,000 ML/day. On the Ovens River, the flow at Rocky Point increased from around 800 ML/day to 3,400 ML/day.

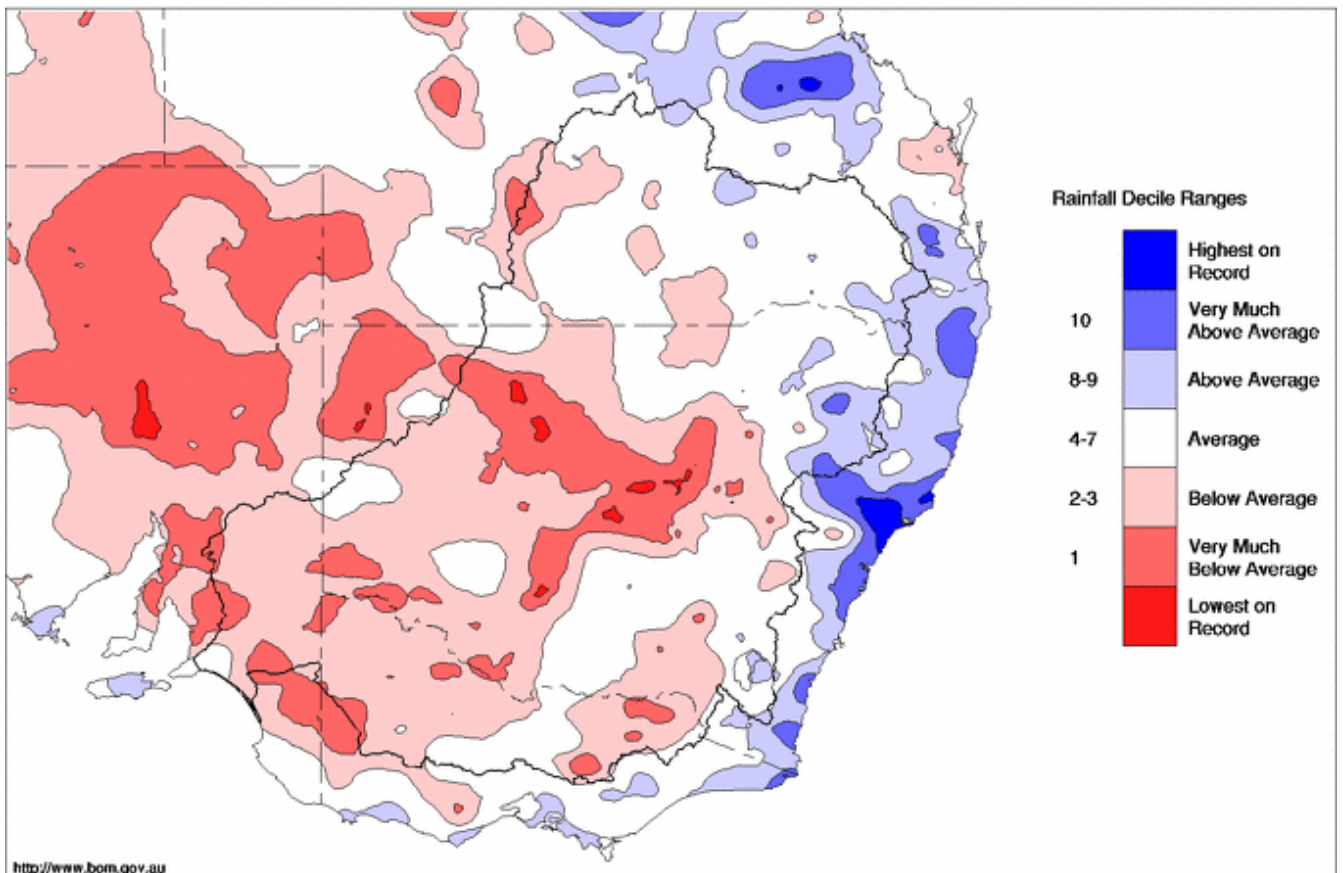


## November 2013 Summary

It was relatively dry across the Murray-Darling Basin during November 2013. The Bureau of Meteorology (BoM) has reported that overall rainfall for the Basin was 37% below the long-term mean, with an area-averaged total of 25.3 mm - the 29th lowest November rainfall on record. South Australia, Victoria and western and central areas of NSW were particularly dry. It is noteworthy that the upper Murray catchments, where the bulk of runoff is normally generated, were also dry. However, parts of south eastern Queensland, north eastern NSW and the upper Murrumbidgee catchments in NSW recorded above-average rainfall (Map 2).

Murray-Darling Rainfall Deciles November 2013

Distribution Based on Gridded Data  
Product of the National Climate Centre



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

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Map 2 - Murray-Darling Basin rainfall deciles for November 2013 (Source: Bureau of Meteorology).

Across the Basin states, the mean temperatures during November were generally average, with BoM stating that area-averaged mean temperatures varied from 0.3 degrees cooler than average in Victoria to 0.6 degrees warmer than average in Queensland. Overnight minimums were cooler than average across south eastern Australia and close to average across northern NSW and southern Queensland.

Inflows to the River Murray System have continued to steadily recede. Monthly inflows (excluding Snowy and Darling and environmental inflows) decreased from around 500 GL in October to around 300 GL during November (see the graph on page 6). This means that inflows generated across the upper Murray catchments were in the lowest 15% of records for the month of November. However, releases of environmental water from tributary storages provided an additional 40 GL to the Murray.



## River Operations

MDBA active storage decreased by 128 GL this week and is currently 6,940 GL, or 81% capacity.

At Dartmouth Reservoir, the storage volume has decreased by 12 GL to 3,775 GL (98% capacity). The release (measured at Colemans) has increased to 3,500 ML/day and will rise to 5,000 ML/day in the coming week due to 'harmony transfers' from Dartmouth to Hume Reservoirs (see attached flow advice for more details). At Hume Reservoir, the storage volume decreased by 67 GL to 2,345 GL (78% capacity). Inflows averaged around 7,200 ML/day. Releases reduced toward the end of the week to 14,400 ML/day in anticipation of reduced demand due to forecast rain.

At Yarrawonga Weir, the total daily diversion through Mulwala Canal and Yarrawonga Main Channel fell from 5,900 ML/day to around 3,600 ML/day. The level in Lake Mulwala reduced over the week to 124.77 m AHD (13 cm below FSL). The release has gradually reduced this week to 13,000 ML/day as delivery of environmental water for the benefit of the Barmah-Millewa Forest concludes.

On the Edward River system, the combined inflow through the Edward and Gulpa off-takes eased to around 2,600 ML/day. Diversions into the Wakool Main Canal reduced to around 800 ML/day. The flow downstream of Stevens Weir has continued to average close to 1,200 ML/day.

On the Goulburn River, the flow at McCoys Bridge reduced to around 800 ML/day before increasing again late in the week to 2,200 ML/day. The flow is expected to reach around 8,000 ML/day in the coming week as further environmental water is delivered.

At Torrumbarry Weir, diversions through the National Channel continued at 2,000 ML/day. The flow downstream in the Murray has fallen to 9,900 ML/day. Further downstream at Swan Hill, the flow has reduced to around 10,900 ML/day.

On the lower Murrumbidgee River, flow at Balranald has reduced from 1,000 ML/day to 740 ML/day. On the River Murray at Euston Weir, the flow increased to around 15,000 ML/day. Further downstream at Mildura Weir the flow has increased to 13,500 ML/day. The Murray-Darling Basin Authority and Goulburn-Murray Water have advised that the Mildura Weir pool is planned to be fully drawn down for up to 3 weeks during late May and June 2014 to allow for essential maintenance to be undertaken. See the attached media release for more details.

On the Darling River, total storage in Menindee Lakes decreased by 38 GL to the current volume of 909 GL (53% capacity). The release (measured at Weir 32) increased to around 800 ML/day and will reach 2,400 ML/day in the coming week. The release of environmental water from Lake Cawndilla into the Great Darling Anabranch continued, with a flow of around 500 ML/day currently at Packers Crossing. In the lower reaches of the Anabranch, the Sunraysia Regional Algal Coordinating Committee has issued a red alert warning for toxic blue-green algae at Tara Downs. More information can be viewed at <http://www.water.nsw.gov.au/About-us/Media-Releases/default.aspx#racc>.

At Lake Victoria, the storage volume decreased by 11 GL to 585 GL (86% capacity) with flow to South Australia averaging around 11,900 ML/day during the week. The flow is expected to increase to 13,000 ML/day in the coming week and remains above the normal South Australian entitlement due to the delivery of additional traded environmental water.

At the Lower Lakes, the 5-day average level for Lake Alexandrina reduced to 0.71 m AHD. Flow into the Coorong through the Barrages is currently around 2,000 ML/day. Releases are being managed to target a level in the Lower Lakes of around 0.70 m AHD. However, starting in the second week of December, the Lower Lakes will be gradually raised to 0.8 m AHD by early January.

**For media inquiries contact the Media Officer on 02 6279 0141**

DAVID DREVERMAN  
Executive Director, River Management





### Water in Storage

Week ending Wednesday 04 Dec 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	484.76	3 775	98%	71	3 704	-12
Hume Reservoir	192.00	3 005	188.47	2 345	78%	23	2 322	-67
Lake Victoria	27.00	677	26.23	585	86%	100	485	-11
Menindee Lakes		1 731*		909	53%	(480 #)	429	-38
<b>Total</b>		<b>9 269</b>		<b>7 614</b>	<b>82%</b>	<b>--</b>	<b>6 940</b>	<b>-128</b>
Total Active MDBA Storage							81% ^	

#### Major State Storages

Burrinjuck Reservoir	1 026	659	64%	3	656	-9
Blowering Reservoir	1 631	1 442	88%	24	1 418	+7
Eildon Reservoir	3 334	3 014	90%	100	2 914	-45

\* 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 Dec 2013

Storage	Active Storage (GL)	Weekly Change (GL)	Diversions (GL)	This Week	From 1 May 2013
Lake Eucumbene - Total	1 769	-43	Snowy-Murray	+21	532
Snowy-Murray Component	795	-11	Tooma-Tumut	+5	218
Target Storage	1 510		Net Diversion	16	315
			Murray 1 Release	+24	799

### Major Diversions from Murray and Lower Darling (GL) \*

New South Wales	This Week	From 1 July 2013	Victoria	This Week	From 1 July 2013
Murray Irrig. Ltd (Net)	32.2	464	Yarrowonga Main Channel (net)	9	140
Wakool Sys Allowance	2.6	7	Torrumbarry System + Nyah (net)	11.7	201
Western Murray Irrigation	1.0	9	Sunraysia Pumped Districts	4.9	45
Licensed Pumps	5.0	92	Licensed pumps - GMW (Nyah+u/s)	0.8	10
Lower Darling	4.9	125	Licensed pumps - LMW	7.5	99
<b>TOTAL</b>	<b>45.7</b>	<b>697</b>	<b>TOTAL</b>	<b>33.9</b>	<b>495</b>

\* 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	217.0 *	
Flow this week	83.6	(11 900 ML/day)
Flow so far this month	48.1	
Flow last month	388.8	

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

	Current	Average over the last week	Average since 1 August 2013
Swan Hill	70	80	90
Euston	100	100	100
Red Cliffs	100	100	110
Merbein	110	100	120
Burtundy (Darling)	570	580	520
Lock 9	170	170	140
Lake Victoria	220	210	280
Berri	230	220	270
Waikerie	290	290	320
Morgan	250	230	310
Mannum	230	240	370
Murray Bridge	270	270	390
Milang (Lake Alex.)	610	610	640
Poltalloch (Lake Alex.)	350	470	550
Meningie (Lake Alb.)	2 740	2 710	2 580
Goolwa Barrages	770	770	1 590



**River Levels and Flows**

**Week ending Wednesday 04 Dec 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	-	-	-	1 310	F	2 700	2 170
Jingellic	4.0	1.72	208.24	4 420	S	4 660	2 650
Tallandoon ( Mitta Mitta River )	4.2	2.35	219.24	3 650	R	2 670	2 810
Heywoods	5.5	2.96	156.59	14 360	F	15 740	19 960
Doctors Point	5.5	2.98	151.45	14 530	F	16 270	20 720
Albury	4.3	1.99	149.43	-	-	-	-
Corowa	3.8	3.31	129.33	16 180	F	17 550	20 480
Yarrowonga Weir (d/s)	6.4	2.04	117.08	13 010	F	14 290	15 040
Tocumwal	6.4	2.81	106.65	13 490	F	14 450	14 740
Torrumbarry Weir (d/s)	7.3	3.18	81.73	9 920	F	11 330	14 410
Swan Hill	4.5	2.03	64.95	10 890	F	12 680	12 250
Wakool Junction	8.8	4.38	53.50	14 020	F	14 930	13 360
Euston Weir (d/s)	8.8	2.49	44.33	14 060	F	14 480	12 790
Mildura Weir (d/s)	-	-	-	-	-	-	-
Wentworth Weir (d/s)	7.3	3.39	28.15	12 970	R	11 410	9 940
Rufus Junction	-	4.24	21.17	11 520	R	11 340	11 440
Blanchetown (Lock 1 d/s)	-	0.87	-	8 840	S	9 300	9 780
<b>Tributaries</b>							
Kiewa at Bandiana	2.7	0.97	154.20	490	S	790	710
Ovens at Wangaratta	11.9	8.12	145.80	920	F	1 090	1 380
Goulburn at McCoys Bridge	9.0	2.21	93.63	2 270	R	1 320	5 410
Edward at Stevens Weir (d/s)	-	1.33	81.10	1 110	F	1 240	1 230
Edward at Liewah	-	1.92	57.30	1 240	F	1 300	1 360
Wakool at Stoney Crossing	-	1.70	55.19	1 190	S	1 200	1 230
Murrumbidgee at Balranald	5.0	1.12	57.08	740	F	850	1 150
Barwon at Mungindi	-	3.07	-	0	F	60	0
Darling at Bourke	-	4.03	-	130	F	150	60
Darling at Burtundy Rocks	-	0.78	-	200	S	200	180

Natural Inflow to Hume (i.e. Pre Dartmouth & Snowy Mountains scheme)	3 960	3 770
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**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	-0.13	-	No. 7 Rufus River	22.10	+0.01	+1.92
No. 26 Torrumbarry	86.05	+0.01	-	No. 6 Murtho	19.25	-0.01	+0.50
No. 15 Euston	47.60	+0.04	-	No. 5 Renmark	16.30	-0.00	+0.45
No. 11 Mildura	34.40	+0.08	+0.54	No. 4 Bookpurnong	13.20	+0.04	+1.23
No. 10 Wentworth	30.80	+0.09	+0.75	No. 3 Overland Corner	9.80	+0.02	+0.55
No. 9 Kulnine	27.40	+0.12	+0.40	No. 2 Waikerie	6.10	-0.01	+0.47
No. 8 Wangumma	24.60	+0.20	+0.19	No. 1 Blanchetown	3.20	+0.01	+0.12

**Lower Lakes FSL = 0.75 m AHD**

Lake Alexandrina average level for the past 5 days (m AHD)	0.71
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**Barrages**

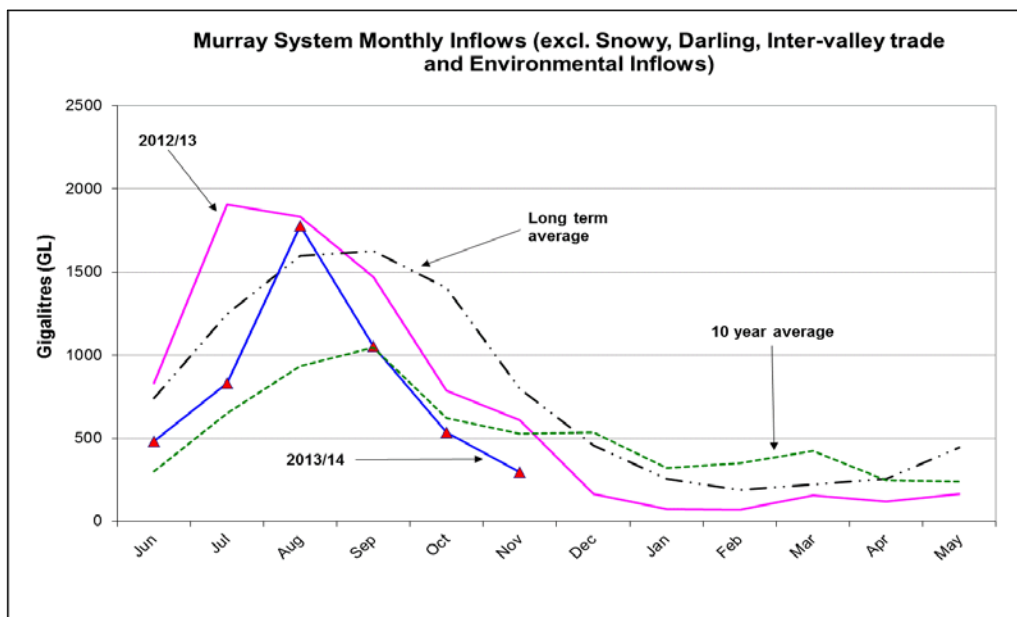
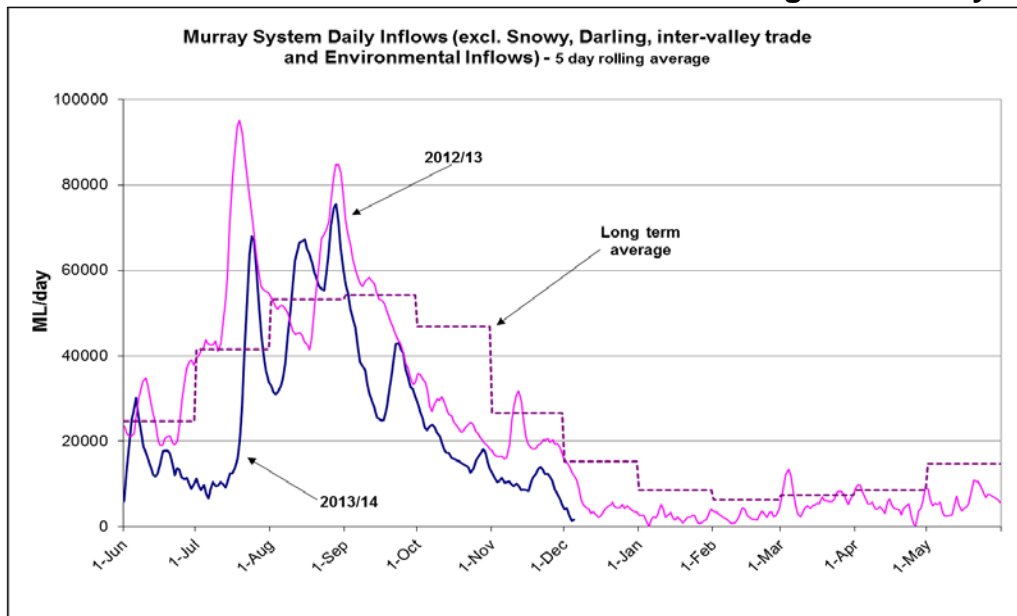
**Fishways at Barrages**

	Openings	Level (m AHD)	No. Open	Rock Ramp	Vertical Slot
Goolwa	128 openings	0.60	3	-	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	9	Open	Open

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



Week ending Wednesday 04 Dec 2013



**State Allocations (as at 04 Dec 2013)**

**NSW - Murray Valley**

High security	100%
General security	100%

**Victorian - Murray Valley**

High reliability	100%
Low reliability	0%

**NSW - Murrumbidgee Valley**

High security	95%
General security	47%

**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.g-mwater.com.au/water-resources/allocations/current.asp>  
 SA : <http://www.environment.sa.gov.au/managing-natural-resources/river-murray>

# Mitta Mitta River

## Flow advice



Monday 2 December 2013

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### Dartmouth to Hume transfers start this week

Water is currently being transferred from Dartmouth Reservoir to Lake Hume due to continued warm, dry conditions and a high demand on water held in Hume Reservoir.

Landholders and river users, including pumpers, should take into account the increasing flows along the Mitta Mitta River and make any necessary adjustments to their river activities.

Known as 'harmony transfers', the movement of water provides additional flood mitigation capacity at Dartmouth Reservoir for next year's winter and spring without impinging upon the security of supply to downstream water users.

Importantly, the transfers currently underway will lessen the need for very large volumes to be transferred later in 2013-14 should dry conditions continue. This in turn will reduce the risks of channel erosion from prolonged high flow rates in the Mitta Mitta River.

Harmony transfers also benefit the operation of the Dartmouth power station, reduce the rate at which Hume Reservoir's water level falls and provide higher in-channel flows in the Mitta Mitta River.

The release from Dartmouth Reservoir is currently about 3,500 ML/day (2.0 m at Colemans gauge) and is planned to be increased gradually over the coming week up to about 5,000 ML/day (2.2 m at Colemans gauge) by Friday 6 December. Thereafter, flows are expected to remain at about this rate for at least the next week or so.

The flow at Tallandoon is now about 3,200 ML/day (2.25 m gauge height) and is expected to rise to about 5,000 ML/day (2.6 m gauge height) by the weekend of 7-8 December.

Dartmouth Reservoir is currently storing 3,782 GL (98% capacity), with the water level about 1.1 m below the spillway. With these increased releases and declining inflows, the volume in the reservoir is expected to slowly fall over the coming month.

A further flow advice will be issued if these forecasts change significantly.

Flow forecasts are routinely updated on the MDBA website at <http://www.mdba.gov.au/river-data/current-information-forecasts/storage-volumes> each Wednesday. The Weekly Report is also available at <http://www.mdba.gov.au/river-data/current-information-forecasts/weekly-report>.

ENDS

For media information contact the MDBA Media Office at [media@mdba.gov.au](mailto:media@mdba.gov.au) or 02 6279 0141.

For other information contact MDBA at [engagement@mdba.gov.au](mailto:engagement@mdba.gov.au) or 02 6279 0100.

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4 December 2013

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## Lowering of Mildura Weir pool in 2014

Plans are underway for the Mildura Weir pool to be fully drawn down for about three weeks during May and June to allow new trestles with mechanised gates to be installed.

The work will mean that Lock 11 will be closed during this period and boat access through the weir will not be possible.

The Murray–Darling Basin Authority and Goulburn–Murray Water anticipate the work will start in May but are already consulting with local river users, including tourism operators, to determine the most appropriate time to carry out the work.

MDBA head of River Management David Dreverman said the drawdown would take the water level in the Mildura Weir pool to about 3.6 metres below full supply level, depending on river flows.

“Drawing the water down to this level will affect river users, which is why we are consulting with them to determine a time for this work that will have as little impact as possible on their activities,” Mr Dreverman said.

“We’ll also need to take into account the river and weather conditions.”

Mr Dreverman said a prototype trestle with mechanised gates was first installed at Mildura Weir in July 2010 and had performed well.

“Mechanised gates will be a significant improvement on the existing method of adjusting the pool height and flow rates, which requires weir staff to manually install and remove large numbers of timber ‘drop bars’.”

Mr Dreverman said that once the trestles were replaced and the weir was reinstated, the weir pool would be raised back to full supply level by around mid-June 2014.

“Some increases in river salinity can occur during drawdown, depending on how much water is flowing through the system, so we’ll be closely monitoring salinity levels throughout the drawdown period,” he said.

It is also expected the weir will need to be drawn down again for a prolonged period in winter 2015 for works that include repairing the concrete apron, which sits on the riverbed and supports the trestles. The MDBA and Goulburn–Murray Water will issue further advice with more specific dates and details in the coming months.

**For more information, contact the MDBA Media office at [media@mdba.gov.au](mailto:media@mdba.gov.au) or 02 6279 0141 or Goulburn-Murray Water on 03 5826 3754.**

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