



RIVER MURRAY WEEKLY REPORT

FOR THE WEEK ENDING WEDNESDAY, 27 JANUARY 2016

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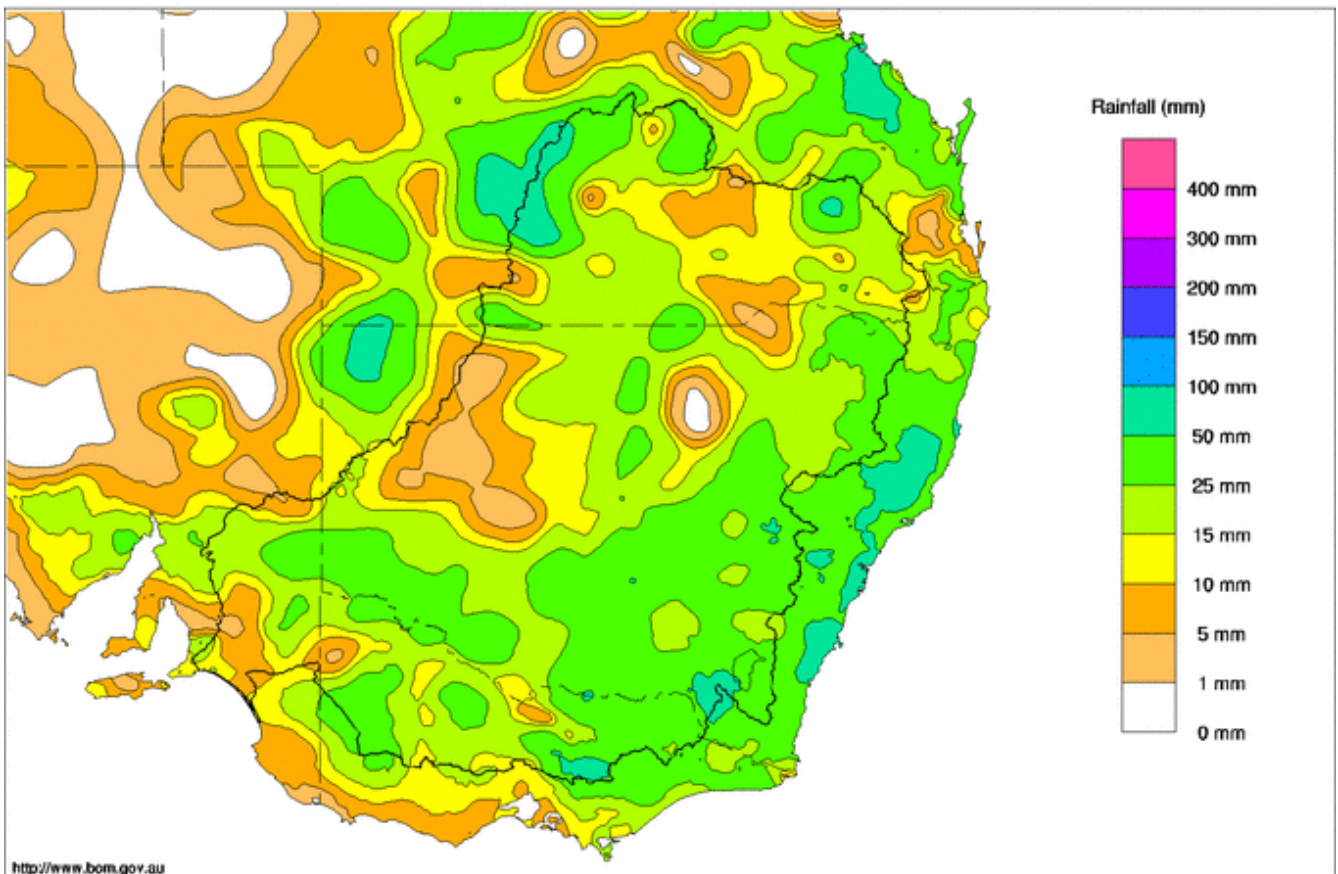
Rainfall and inflows

Rain was widespread across the Murray-Darling Basin this week as humid, unstable conditions prevailed. Thunderstorms were a common occurrence, with severe storms, intense rain and hail reported in many areas. Further rain is expected during the coming days.

It was consistently wet over south-eastern NSW and eastern Victoria, where notable totals included 87 mm at Hargraves, 75 mm at Jamieson, 72 mm at Cabramurra, 68 mm at Yarrowonga, 65 mm at Young, 64 mm at Yea, 62 mm at Mudgee and 60 mm at Henty. Useful rain also fell through parts of western Victoria, South Australia and the Sunraysia region in south-west NSW. Weekly totals included 57 mm at Wentworth, 49 mm at Dimboola and 38 mm at Berri. The rain was patchier in Queensland, however there were some isolated higher totals, including 90 mm at Chinchilla, 69 mm at Wansey Downs and 56 mm at Nindigully (Map 1).

Murray-Darling Rainfall Totals (mm) Week Ending 27th January 2016

Australian Bureau of Meteorology



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Map 1 - Murray-Darling Basin rainfall week ending 27 January 2016 (Source: Bureau of Meteorology)

There was little change to stream flows along the upper Murray tributaries despite the rain and storms over the catchments. On the upper Murray, the flow at Biggara increased from 300 ML/day to a peak of 450 ML/day before receding again. Downstream at Jingellic, flows fell away as the week progressed due to decreasing releases from Snowy Hydro. The current flow is just under 2,000 ML/day. On the Ovens River, flows remained fairly steady. The flow at Wangaratta averaged slightly more than the previous week at about 250 ML/day.



River Operations

- Lock 15 at Euston closed to river traffic for about 16 weeks to enable refurbishment of the lock chamber.
- Transfers from Dartmouth to Hume to gradually decrease.

MDBA total storage decreased by 50 GL this week, with the active storage now at 3,199 GL (38% capacity). At **Dartmouth Reservoir**, the storage volume fell by 44 GL to 1,813 GL (47% capacity). The release from Dartmouth, measured at Colemans, has been lowered from 6,840 ML/day down to a current release of 6,260 ML/day. Assuming dry conditions, the release is forecast to gradually decrease to around 4,000 ML/day in the coming weeks. For more information, see the attached Mitta Mitta flow update.

At **Hume Reservoir**, the storage volume reduced by 1 GL to 1,128 GL (38% capacity). With the widespread rainfall in irrigation districts over the week, releases from Hume, measured at Doctors Point, were decreased from 15,200 ML/day to 11,500 ML/day as local demand from Lake Mulwala decreased.

The level in **Lake Mulwala** was increased from 124.75 m AHD to above 124.80 m AHD to assist recreational activities on the lake over the Australia Day period. A localised thunderstorm then resulted in the level rising to 124.89 m AHD. Over the coming week the lake should fall back below 124.80 m AHD. Rainfall in the irrigation districts led to diversions to Yarrowonga Main Channel falling from around 940 ML/day to around 650 ML/day. Similarly, diversions to Mulwala Canal have dropped from close to 2,900 ML/day to 2,150 ML/day, with close to 1,400 ML/day of this water used to bypass the Barmah Choke via the Edward and Perricoota Escapes. Releases from **Yarrowonga Weir** have averaged 10,000 ML/day but are forecast to fall to 9,600 ML/day early next week.



Photo 1 – Mulwala Canal near Deniliquin. (Photo: Tom Zouch, MDBA)

The Edward Offtake and Gulpa Offtake continue to pass just over 1,550 ML/day and around 500 ML/day, respectively. The continued high flows down the Gulpa Creek are thanks to environmental water being delivered for a bird breeding event in the Reed Beds of Millewa Forest (Photo 2). These rates are expected to continue throughout the coming week.

Diversions to the Wakool Main Canal have dropped to 170 ML/day. Downstream of Steven's Weir on the **Edward River** remains close to channel capacity and has averaged 2,650 ML/day this week.



Photo 2 – Environmental water being used to support a bird breeding event in Millewa Forest. (Photo: Tom Zouch, MDBA)

Rice's Weir on the **Broken Creek** has averaged 320 ML/day this week. On the **Goulburn River** the flow at McCoys Bridge has increased slightly to over 600 ML/day and is expected to rise further to around 700 ML/day in the coming week to accommodate Inter Valley Trade (IVT) delivery.

Downstream at **Torrumbarry Weir** diversions to National Channel remain steady at 2,400 ML/day. Flow downstream of the weir remains close to 6,100 ML/day and is forecast to continue at this rate over the upcoming week.

At Balranald on the **Murrumbidgee River** flows have averaged 1,300 ML/day and are anticipated to gradually rise towards 1,500 ML/day. The bulk of this water is IVT water being delivered to the Murray system.

Rainfall along the mid-Murray resulted in a drop in irrigation diversions. As a result the flow at **Euston** peaked at 9,500 ML/day before receding to 9,170 ML/day. Without additional rainfall the flow is expected to recede towards 8,000 ML/day throughout the week as demands increase again. Boat operators are reminded that **Lock 15** at Euston will be closed for approximately the next 16 weeks to enable refurbishment of the lock chamber. The lock will be closed to boat traffic throughout the duration of these works. Further information can be found on the Water NSW website <http://www.watarnsw.com.au/about/newsroom/2016/work-at-euston-lock-to-start-late-january>.



On the **Darling River**, total storage at **Menindee Lakes** fell by 1 GL to a storage volume of 63 GL (4% capacity), with releases (measured at Weir 32) having effectively ceased on 15 December. Water users in this region are reminded that a red alert warning for blue green algae at several sites at Menindee Lakes and along the lower Darling is still current. Updates about blue-green algae blooms and Red Alert areas can be obtained from the Regional Algal Coordinating Committee freecall Algal Information Hotline on **1800 999 457** or visit www.water.nsw.gov.au. There has been no flow at **Burtundy** on the lower Darling since April 2015. The weir pool at **Wentworth**—at the confluence of the Murray and Darling Rivers—continues to be maintained at about 10 cm above Full Supply Level (FSL) to assist water users on the lower Darling arm of the weir pool.

At **Lock 9**, the weir pool is currently targeting about 10 cm below FSL, with the **Lock 8** weir pool currently around 80 cm below FSL and the weir pool at **Lock 7** currently around 50 cm below FSL. These changes are part of an on-going weir pool variability trial to introduce variations in weir pool levels to achieve a more natural wetting and drying cycle for the riverine environment.

The storage volume at **Lake Victoria** fell this week by 5 GL to 452 GL (67% capacity). The average flow to **South Australia** remains around 7,200 ML/day, and is expected to increase to around 7,800 ML/day next week due to the provision of additional environmental water aimed at supporting Lower Lake levels and maintaining releases through the barrage fishways into the Coorong.

The 5-day average at the **Lower Lakes** has fallen by 1 cm and is now 0.58 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 27 Jan 2016

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	447.59	1 813	47%	71	1 742	-44
Hume Reservoir	192.00	3 005	179.96	1 128	38%	23	1 105	-1
Lake Victoria	27.00	677	25.04	452	67%	100	352	-5
Menindee Lakes		1 731*		63	4%	(- -) #	0	-1
Total		9 269		3 456	37%	--	3 199	-50
Total Active MDBA Storage							38% ^	

Major State Storages

Burrinjuck Reservoir	1 026	530	52%	3	527	-16
Blowering Reservoir	1 631	468	29%	24	444	-5
Eildon Reservoir	3 334	1 463	44%	100	1 363	-29

* 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 26 Jan 2016

Storage	Active Storage (GL)	Weekly Change (GL)	Diversion (GL)	This Week	From 1 May 2015
Lake Eucumbene - Total	2 090	-53	Snowy-Murray	+26	391
Snowy-Murray Component	1 051	-20	Tooma-Tumut	+0	140
Target Storage	1 520		Net Diversion	26	251
			Murray 1 Release	+23	575

Major Diversions from Murray and Lower Darling (GL) *

New South Wales	This Week	From 1 July 2015	Victoria	This Week	From 1 July 2015
Murray Irrig. Ltd (Net)	5.6	266	Yarrowonga Main Channel (net)	2.6	153
Wakool Sys Allowance	2.3	49	Torrumbarry System + Nyah (net)	12.3	315
Western Murray Irrigation	0.5	12	Sunraysia Pumped Districts	1.6	73
Licensed Pumps	5.7	120	Licensed pumps - GMW (Nyah+u/s)	1.8	24
Lower Darling	0.3	7	Licensed pumps - LMW	20	206
TOTAL	14.4	454	TOTAL	38.3	771

* 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	50.2
Flow so far this month	188.5
Flow last month	203.9

(7 200 ML/day)

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

	Current	Average over the last week	Average since 1 August 2015
Swan Hill	80	80	80
Euston	81	80	-
Red Cliffs	110	110	130
Merbein	110	110	130
Burtundy (Darling)	1 390	1 370	1 090
Lock 9	120	130	140
Lake Victoria	190	200	210
Berri	210	210	220
Waikerie	250	260	280
Morgan	280	280	280
Mannum	390	410	320
Murray Bridge	400	390	330
Milang (Lake Alex.)	880	880	770
Poltalloch (Lake Alex.)	800	790	620
Meningie (Lake Alb.)	2 210	2 210	2 070
Goolwa Barrages	1 450	1 430	1 110



River Levels and Flows

Week ending Wednesday 27 Jan 2016

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	-	-	-	1 240	F	4 180	4 290
Jingellic	4.0	1.33	207.85	1 830	F	5 030	4 770
Tallandoon (Mitta Mitta River)	4.2	2.87	219.76	6 410	S	6 640	7 270
Heywoods	5.5	2.96	156.59	11 090	S	12 410	14 510
Doctors Point	5.5	2.71	151.18	11 460	R	12 680	14 790
Albury	4.3	1.77	149.21	-	-	-	-
Corowa	4.6	2.60	128.62	11 560	F	13 340	14 200
Yarrowonga Weir (d/s)	6.4	1.63	116.67	10 010	R	9 990	9 860
Tocumwal	6.4	2.26	106.10	10 290	R	10 310	10 040
Torrumbarry Weir (d/s)	7.3	2.08	80.63	6 230	S	6 080	6 120
Swan Hill	4.5	1.22	64.14	6 110	S	6 070	6 210
Wakool Junction	8.8	3.16	52.28	8 560	F	8 510	8 350
Euston Weir (d/s)	9.1	1.76	43.60	9 170	F	8 860	8 080
Mildura Weir (d/s)	-	-	-	8 310	F	7 580	6 760
Wentworth Weir (d/s)	7.3	2.91	27.67	7 490	R	6 900	5 400
Rufus Junction	-	3.57	20.50	6 960	R	6 830	6 880
Blanchetown (Lock 1 d/s)	-	0.64	-	5 040	R	4 590	3 580
Tributaries							
Kiewa at Bandiana	2.8	0.76	153.99	200	F	210	250
Ovens at Wangaratta	11.9	7.83	145.51	290	R	260	190
Goulburn at McCoys Bridge	9.0	1.29	92.71	620	R	580	580
Edward at Stevens Weir (d/s)	5.5	2.43	82.20	2 670	S	2 670	2 600
Edward at Liewah	-	2.99	58.37	2 560	R	2 490	2 390
Wakool at Stoney Crossing	-	1.51	55.00	630	S	630	610
Murrumbidgee at Balranald	5.0	1.62	57.58	1 220	R	1 300	1 360
Barwon at Mungindi	6.1	3.35	-	380	R	300	430
Darling at Bourke	9.0	3.68	-	0	F	0	0
Darling at Burtundy Rocks	-	0.61	-	0	F	0	0

Natural Inflow to Hume	1 270	1 370
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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	-0.03	-	No. 7 Rufus River	22.10	-0.51	+1.24
No. 26 Torrumbarry	86.05	+0.00	-	No. 6 Murtho	19.25	+0.05	+0.10
No. 15 Euston	47.60	-0.03	-	No. 5 Renmark	16.30	+0.03	+0.23
No. 11 Mildura	34.40	+0.06	+0.25	No. 4 Bookpurnong	13.20	+0.06	+0.72
No. 10 Wentworth	30.80	+0.10	+0.27	No. 3 Overland Corner	9.80	+0.07	+0.23
No. 9 Kulnine	27.40	-0.07	-0.71	No. 2 Waikerie	6.10	+0.06	+0.13
No. 8 Wangumma	24.60	-0.81	-0.28	No. 1 Blanchetown	3.20	-0.04	-0.11

Lower Lakes FSL = 0.75 m AHD

Lake Alexandrina average level for the past 5 days (m AHD)	0.58
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Barrages

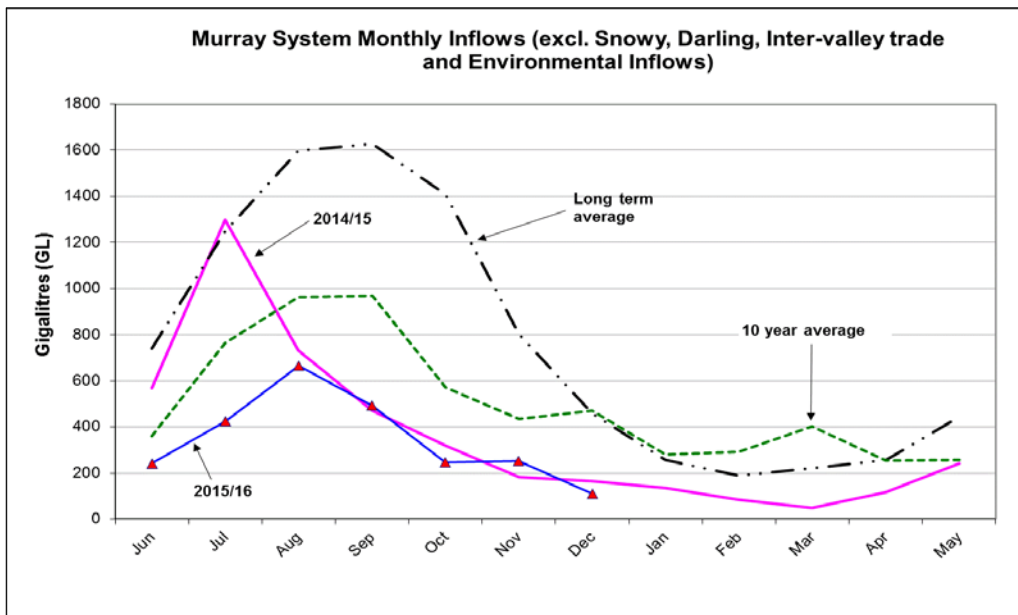
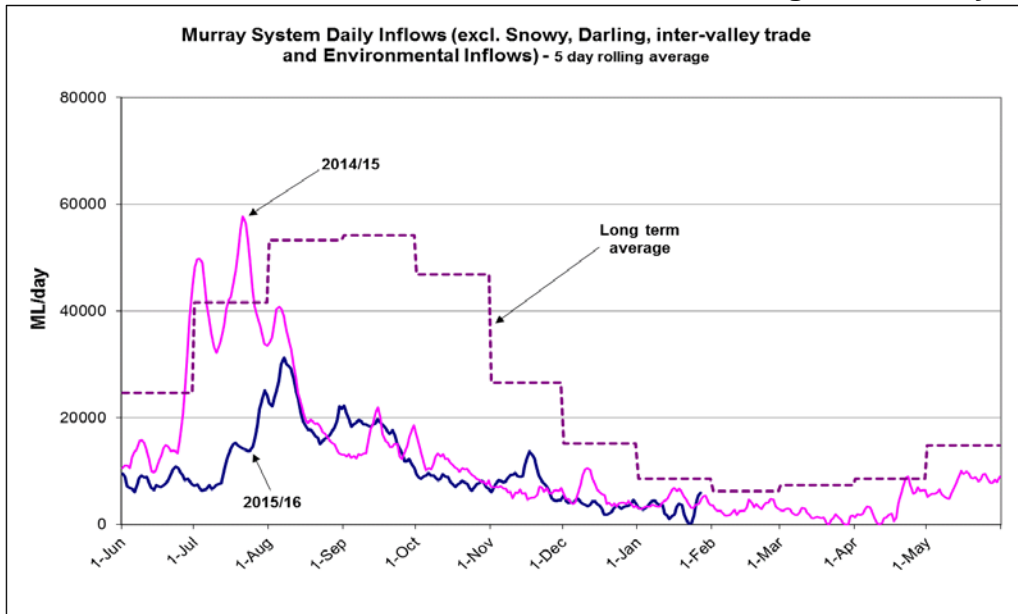
Fishways at Barrages

	Openings	Level (m AHD)	No. Open	Rock Ramp	Vertical Slot
Goolwa	128 openings	0.58	All closed	-	Open
Mundoo	26 openings	0.60	All closed	-	-
Boundary Creek	6 openings	-	All closed	-	-
Ewe Island	111 gates	-	All closed	-	-
Tauwichee	322 gates	0.56	All closed	Closed	Open

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



Week ending Wednesday 27 Jan 2016



State Allocations (as at 27 Jan 2016)

NSW - Murray Valley

High security	97%
General security	19%

Victorian - Murray Valley

High reliability	96%
Low reliability	0%

NSW - Murrumbidgee Valley

High security	95%
General security	32%

Victorian - Goulburn Valley

High reliability	85%
Low reliability	0%

NSW - Lower Darling

High security	75%
General security	0%

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.nvrn.net.au/allocations/current.aspx>
- SA : <http://www.environment.sa.gov.au/managing-natural-resources/river-murray>

Flow advice



27 January 2016

Mitta Mitta flow update

Landholders and river users, including pumpers, on the Mitta Mitta River are advised to take into account the forecast releases of water from Dartmouth Dam and make any necessary adjustment to their river activities.

Releases will continue to decrease from Thursday 28 January, reaching 4,000 megalitres per day (ML/day) on 19 February 2016.

The information in the table below assumes dry conditions, with little or no rainfall for the period.

Forecast Mitta Mitta flows 28 January - 23 February 2016

Date	Releases from Dartmouth Dam	Colemans Gauge		Tallandoon Gauge	
		Flow (ML/day)	Height (m)	Flow (ML/day)	Height (m)
Thursday 28 January	Flows decreasing	6,200	2.39	6,300	2.85
Tuesday 9 February	Flows decreasing	5,000	2.23	5,100	2.63
Friday 19 February	Flows steady	4,000	2.08	4,100	2.44
Tuesday 23 February	Flows steady	4,000	2.08	4,100	2.44

Autumn releases are forecast to average below 5,000 ML/day, which is less than the average release rate of 7,000 ML/day over the last three months.

The releases from Dartmouth Dam may vary from those forecast and flows on the Mitta Mitta may increase at any time if there's rainfall in the catchment downstream of the dam.

A further flow advice will be issued when there is a significant change to releases.

Landholders and river users on the Mitta Mitta are advised to regularly check the current flows and forecasts on the MDBA website for more information on releases from Dartmouth Dam: www.mdba.gov.au/river-information/storage-volumes-releases

Live river data for Dartmouth Dam, the Mitta Mitta and other sites on the Murray system can be seen at: <http://livedata.mdba.gov.au>.

Summary information about the River Murray system is available in the River Murray weekly report at: <http://www.mdba.gov.au/river-information/weekly-reports>

ENDS

For more information, contact the MDBA Media office at media@mdba.gov.au or 02 6279 0141

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