



RIVER MURRAY WEEKLY REPORT

FOR THE WEEK ENDING WEDNESDAY, 18TH MARCH 2015

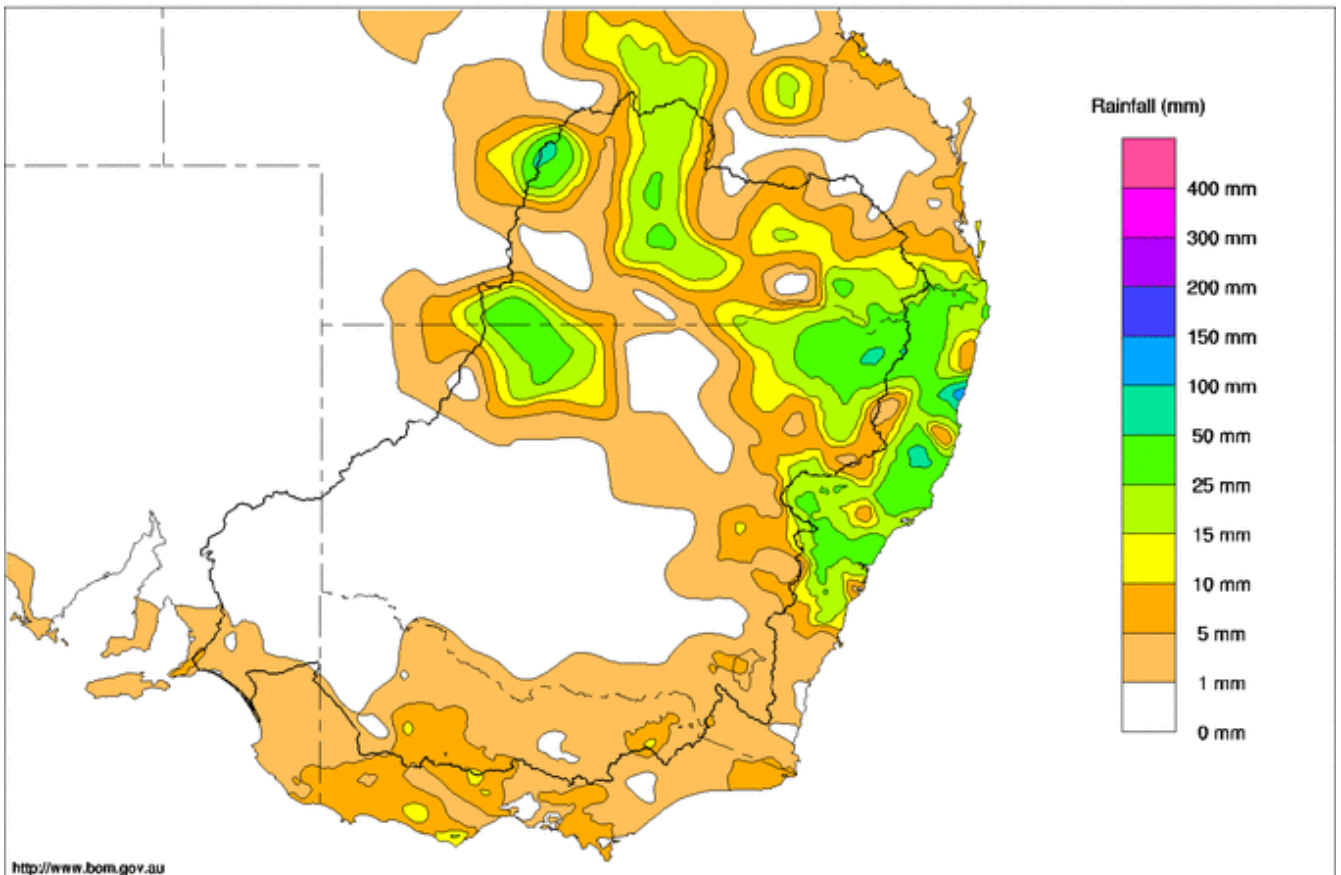
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Rainfall and Inflows

Rainfall followed a similar pattern to last week, with only light rain or dry conditions through the south and patchy showers and thunderstorms in the north due to a weak inland trough (Map 1).

The highest weekly totals fell along the New England tablelands in NSW and included 53 mm at Inverell, 49 mm at Emmaville and 43 mm at Deepwater. Slightly further north across the Queensland border, there was 43 mm at Wallangarra and 35 mm at Morven. Totals elsewhere included 36 mm at Gravesend on the Gwydir River and 23 mm at Bourke Airport.

Murray-Darling Rainfall Totals (mm) Week Ending 18th March 2015
Australian Bureau of Meteorology



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Issued: 18/03/2015

Map 1 - Murray Darling Basin rainfall week ending 18th March 2015 (Source: Bureau of Meteorology)

Very little has happened to upper Murray system tributary flows over the last week with only light rain falling over the south-east ranges. Steady base flows have been observed at most gauges. For example, on the upper Murray, the flow at Biggara is steady at 230 ML/day. On the Ovens River, a flow of 150 ML/day has continued at Wangaratta for the last few days.



River Operations

- Hot, dry conditions continue;
- Easter river levels forecast to remain similar to previous months;
- Water transfers from Dartmouth to Hume to recommence;
- Euston Weir lowered to meet downstream demands.

Persistent hot and dry weather over past weeks has led to continued high demands and high system losses throughout the River Murray. These conditions have prompted a range of operational actions, including the recommencement of water transfers from Dartmouth Reservoir, increased water released into the Edward system and the lowering of Euston weir pool.

Due to the continued high demands, river levels along the Murray at Easter are likely to remain similar to those experienced in recent months (see attached media release). Holiday makers, businesses and communities are encouraged to keep up to date with river level forecasts by checking the website at www.mdba.gov.au/river-data.

MDBA total storage decreased by 153 GL this week, with the active storage now at 3,930 GL (47% capacity).

At **Dartmouth** Reservoir, the storage decreased by 6 GL to 3,029 GL (79% capacity). The release, measured at Colemans gauge, has been steady through the week at 600 ML/day. With Hume storage steadily falling, bulk water transfers from Dartmouth to Hume are planned to recommence in the coming week (see attached flow advice). The release from Dartmouth is scheduled to begin increasing on Monday until flows reach 3,500 ML/day.

At **Hume** Reservoir, the storage volume fell by 115 GL this week to 884 GL (29% capacity). High downstream demands are requiring significant volumes of water to be released, and with low natural inflow Hume is expected to continue falling over the coming week. The release from Hume is currently around 17,500 ML/day.

At **Lake Mulwala**, irrigation diversions have remained consistently high, with total diversions through Mulwala Canal and the Yarrawonga Main Channel in excess of 7,500 ML/day. The Lake Mulwala pool level is 124.77 m AHD and the downstream release is steady at 9,900 ML/day.

On the **Edward** River system, total flow through the Edward River and Gulpa Creek offtakes is steady at around 1,900 ML/day. In order to meet downstream demands in the lower Murray, increased water is now being delivered into the Edward-Wakool system via the irrigation channel networks. Additional releases out of the Edward River Escape have increased the flow downstream of Stevens Weir from 2,400 ML/day to around 2,650 ML/day. In the coming week around 300 ML/day will also begin being released via the Wakool Escape into the Wakool River.

On the **Goulburn** River, the flow at McCoys Bridge increased this week from 940 ML/day to 2,300 ML/day as a pulse of water released from Lake Eildon began entering the Murray. This pulse is primarily made up of Inter Valley Transfer (IVT) water which has been traded from the Goulburn to the Murray system. In the coming week the flow at McCoys Bridge will rise to a peak of around 4,100 ML/day before gradually receding.

At **Torrumbarry** Weir, diversions at National Channel increased this week from 2,500 ML/day to 3,200 ML/day. As a result of the greater diversions the flow downstream of Torrumbarry briefly fell below 5,000 ML/day, but is now rising and expected to increase up to around 7,500 ML/day over the coming week as the Goulburn pulse passes.

In the lower **Murrumbidgee** River, the flow at Balranald has increased from 250 ML/day to 450 ML/day as IVT water traded out of the Murrumbidgee valley is delivered into the Murray. The flow at Balranald will continue rising in coming days to 900 ML/day, where it is then planned to remain steady into April.

Further downstream, the **Euston** weir pool will be gradually lowered over the coming week with the additional water released being used to meet downstream demands. The pool level is currently 47.57 m AHD, and planned to be gradually lowered by approximately 3 cm per day to a level of around 47.35



m AHD (25cm below Full Supply Level). The weir pool is likely to remain below Full Supply Level until early May unless higher inflows enable refilling of the weir pool earlier.

At **Menindee Lakes** (currently managed by NSW), the storage volume decreased by 5 GL to 93 GL (5% capacity). The reduction in storage volume was less compared to previous weeks, as a small flow event in the upper Darling has begun entering Lake Wetherell, raising the storage by around 7 GL in the last fortnight. Downstream of the storage, releases into the lower Darling are currently targeting 210 ML/day at Weir 32. At the confluence of the Darling and Murray Rivers at **Wentworth**, the flow is 6,300 ML/day and forecast to recede to around 5,500 ML/day over the coming week.

At **Lake Victoria**, the storage volume has decreased by 28 GL to 211 GL (31% capacity). The flow to South Australia was reduced over the past week from 9,800 ML/day to around 6,500 ML/day. Standard entitlement flow for South Australia in March is 6,000 ML/day, however additional environmental water is being delivered in order to maintain freshwater releases into the Coorong. The bulk of this month's environmental water was delivered in the first half of March, prior to the commencement of works which are now underway on the Lake Victoria outlet structure.

At the **Lower Lakes**, the 5-day average water level in Lake Alexandrina decreased by 1 cm to 0.53 m AHD. Barrage releases over the past week are estimated to be around 3,000 ML/day. Dredging operations at the **Murray Mouth** remain ongoing, with the aim of maintaining a connection between the Coorong and the Southern Ocean (Photo 1). As per the dredging plan, there is currently one dredge operating in the Tauwitchere channel (the left circle in the photo) and a second dredge operating in the Goolwa channel.



Photo 1 – Sand dredges operating in the Tauwitchere channel (left circle in photo) and the Goolwa channel, which are working to keep the Murray Mouth open and maintain a connection between the Coorong and the Southern Ocean (source: SA DEWNR).

For media inquiries contact the Media Officer on 02 6279 0141

DAVID DREVERMAN
Executive Director, River Management

GPO Box 1801 Canberra ACT 2601
Email: engagement@mdba.gov.au

Telephone: 02 6279 0100
Web: www.mdba.gov.au

Facsimile: 02 6248 8053
ABN 13679821382



Water in Storage

Week ending Wednesday 18 Mar 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	472.44	3 029	79%	71	2 958	-6
Hume Reservoir	192.00	3 005	177.72	884	29%	23	861	-115
Lake Victoria	27.00	677	22.61	211	31%	100	111	-28
Menindee Lakes		1 731*		93	5%	(- -) #	0	-5
Total		9 269		4 217	45%	--	3 930	-153
Total Active MDBA Storage							47% ^	

Major State Storages

Burrinjuck Reservoir	1 026	332	32%	3	329	-5
Blowering Reservoir	1 631	509	31%	24	485	-21
Eildon Reservoir	3 334	2 087	63%	100	1 987	-60

* 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 17 Mar 2015

Storage	Active Storage (GL)	Weekly Change (GL)	Diversion (GL)	This Week	From 1 May 2014
Lake Eucumbene - Total	2 231	n/a	Snowy-Murray	+15	322
Snowy-Murray Component	1 055	n/a	Tooma-Tumut	+1	209
Target Storage	1 410		Net Diversion	14	113
			Murray 1 Release	+16	591

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)	26.9	738	Yarrowonga Main Channel (net)	13.9	248
Wakool Sys Allowance	2.9	62	Torrumbarry System + Nyah (net)	n/a	n/a
Western Murray Irrigation	0.3	22	Sunraysia Pumped Districts	2.1	96
Licensed Pumps	9.7	226	Licensed pumps - GMW (Nyah+u/s)	1.3	54
Lower Darling	0.1	60	Licensed pumps - LMW	4.3	258
TOTAL	39.9	1108	TOTAL	21.7	1170

* 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	186.0 *
Flow this week	59.2
Flow so far this month	167.7
Flow last month	260.6

(8 500 ML/day)

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

	Current	Average over the last week	Average since 1 August 2014
Swan Hill	40	60	90
Euston	80	80	100
Red Cliffs	110	110	120
Merbein	110	100	130
Burtundy (Darling)	850	850	760
Lock 9	110	110	140
Lake Victoria	240	220	210
Berri	220	210	220
Waikerie	260	250	280
Morgan	260	260	280
Mannum	280	290	330
Murray Bridge	310	320	360
Milang (Lake Alex.)	800	1 010	770
Poltalloch (Lake Alex.)	590	700	610
Meningie (Lake Alb.)	2 450	2 460	2 410
Goolwa Barrages	1 200	1 230	1 160



River Levels and Flows

Week ending Wednesday 18 Mar 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	-	-	-	2 580	F	2 230	2 330
Jingellic	4.0	1.50	208.02	2 960	S	2 800	2 910
Tallandoon (Mitta Mitta River)	4.2	1.49	218.38	730	R	720	760
Heywoods	5.5	3.49	157.12	17 660	F	18 570	18 510
Doctors Point	5.5	3.31	151.78	18 580	F	19 290	18 880
Albury	4.3	2.39	149.83	-	-	-	-
Corowa	3.8	3.64	129.66	18 880	F	18 330	18 150
Yarrowonga Weir (d/s)	6.4	1.63	116.67	9 890	S	9 880	9 550
Tocumwal	6.4	2.26	106.10	10 120	S	9 960	9 640
Torrumbarry Weir (d/s)	7.3	1.71	80.26	4 680	F	5 090	5 970
Swan Hill	4.5	1.04	63.96	4 960	S	5 170	5 970
Wakool Junction	8.8	2.63	51.75	6 410	F	6 870	8 180
Euston Weir (d/s)	8.8	1.34	43.18	6 450	R	6 690	8 380
Mildura Weir (d/s)	-	-	-	6 210	F	6 580	8 320
Wentworth Weir (d/s)	7.3	2.81	27.57	6 300	S	6 700	8 110
Rufus Junction	-	3.38	20.31	5 810	F	7 710	9 140
Blanchetown (Lock 1 d/s)	-	0.65	-	6 500	F	7 150	7 240
Tributaries							
Kiewa at Bandiana	2.7	0.71	153.94	170	F	190	200
Ovens at Wangaratta	11.9	7.70	145.38	150	S	170	190
Goulburn at McCoys Bridge	9.0	2.23	93.65	2 310	R	1 290	1 000
Edward at Stevens Weir (d/s)	-	2.42	82.19	2 670	S	2 580	2 260
Edward at Liewah	-	2.59	57.97	2 020	S	2 050	2 230
Wakool at Stoney Crossing	-	1.34	54.83	270	S	280	350
Murrumbidgee at Balranald	5.0	0.82	56.78	460	R	290	380
Barwon at Mungindi	-	3.18	-	70	S	80	100
Darling at Bourke	-	4.05	-	190	F	320	610
Darling at Burtundy Rocks	-	-	-	0	F	0	10

Natural Inflow to Hume	450	530
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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	-0.13	-	No. 7 Rufus River	22.10	+0.01	+1.07
No. 26 Torrumbarry	86.05	+0.00	-	No. 6 Murtho	19.25	-0.10	-0.05
No. 15 Euston	47.60	-0.03	-	No. 5 Renmark	16.30	-0.02	+0.25
No. 11 Mildura	34.40	+0.01	+0.15	No. 4 Bookpurnong	13.20	+0.01	+0.87
No. 10 Wentworth	30.80	+0.08	+0.17	No. 3 Overland Corner	9.80	+0.01	+0.27
No. 9 Kulnine	27.40	-0.06	-0.52	No. 2 Waikerie	6.10	+0.01	+0.20
No. 8 Wangumma	24.60	-0.57	+0.08	No. 1 Blanchetown	3.20	-0.11	-0.10

Lower Lakes FSL = 0.75 m AHD

Lake Alexandrina average level for the past 5 days (m AHD)	0.53
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Barrages

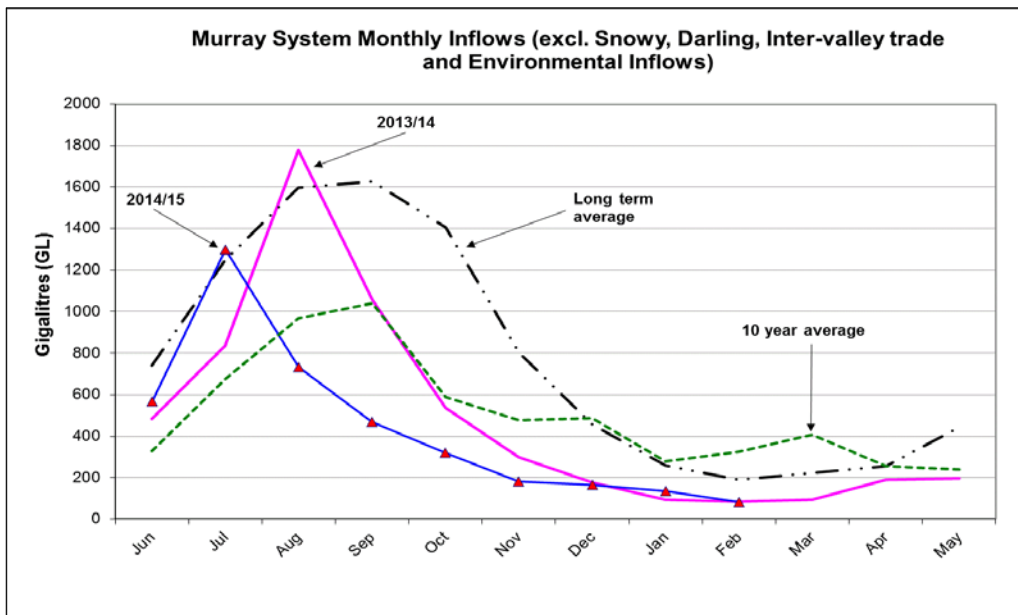
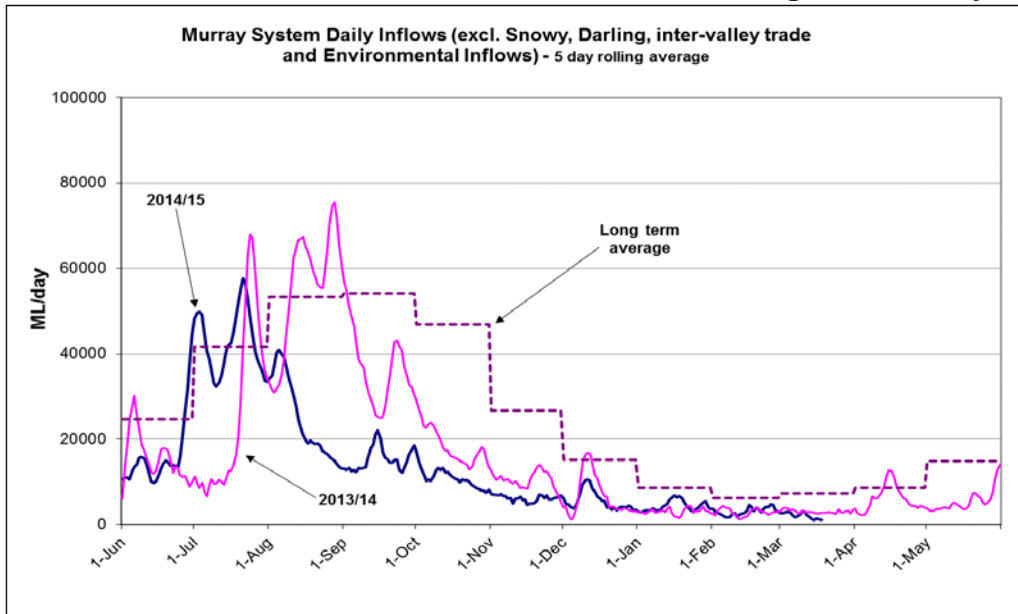
Fishways at Barrages

	Openings	Level (m AHD)	No. Open	Rock Ramp	Vertical Slot
Goolwa	128 openings	0.47	4	-	Open
Mundoo	26 openings	0.46	All closed	-	-
Boundary Creek	6 openings	-	0.1	-	-
Ewe Island	111 gates	-	All closed	-	-
Tauwichee	322 gates	0.49	10	Open	Open

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



Week ending Wednesday 18 Mar 2015



State Allocations (as at 18 Mar 2015)

NSW - Murray Valley

High security	97%
General security	61%

Victorian - Murray Valley

High reliability	100%
Low reliability	0%

NSW - Murrumbidgee Valley

High security	95%
General security	51%

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>

MEDIA RELEASE



19 March 2015

Murray flows likely to continue through Easter

People along the River Murray are advised that flows at Easter are likely to remain in the range that communities experienced during summer.

MDBA head of River Management David Dreverman, said water would continue to be released into the river from the upper Murray storages to help meet South Australia's entitlement and ongoing deliveries of environmental water.

"Dry conditions along the Murray has left South Australia's reserves in Lake Victoria in need of a top-up," Mr Dreverman said.

"Typically, at this time of year, river levels are influenced by water deliveries to irrigators, and the decision by irrigators to order their water is strongly influenced by the weather. If it rains in the irrigation districts then reduced demand for water can lower the river level."

"This year, however, the need to provide water to South Australia means the orders from irrigators will have much less of an effect on river heights.

"We understand that people enjoy and benefit from recreation and tourism along the river. But no matter what time of year it is, we can only release flows into the river when entitlement holders need it. If they don't order the water, we cannot release it."

Holiday makers, businesses and communities are encouraged to keep up to date with river level forecasts by checking the website or following the MDBA on social media:

- MDBA website: mdba.gov.au/river-data
- Twitter: [@MD_Basin_Auth](https://twitter.com/MD_Basin_Auth)
- Facebook: [MDBAauth](https://www.facebook.com/MDBAauth)
- MDBA blog: freeflow.mdba.gov.au

END

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

Flow advice



20 March 2015

Mitta flows resume as dry conditions continue

Landholders and river users on the Mitta Mitta are advised that releases into the river from Dartmouth Dam will be increased during autumn to transfer water to Hume Dam.

Dry conditions have persisted into autumn which means more water needs to be available from Hume Dam to meet downstream demands.

Starting on 23 March, releases from Dartmouth into the Mitta Mitta River will increase until flows reach 3500 megalitres per day (ML/day) on 24 March, which is 1.99 metres local gauge height at Colemans gauge.

Releases will remain at 3500 ML/day until Tuesday 7 April. For the rest of autumn, the flow rate will vary between minimum flows and 6000 ML/day, depending on the weather along the river system.

Landholders and river users on the Mitta Mitta are encouraged to regularly check the flow forecasts that are updated on the MDBA website each Wednesday.

The current storage volume in Dartmouth Reservoir is 3029GL (79% capacity) while Hume Reservoir's storage is 867GL (29% capacity).

The Bureau of Meteorology (BoM) is now advising that an El Niño is likely in 2015. An El Niño in 2015 does not automatically mean dry conditions but increases the likelihood of lower winter-spring rainfall in South East Australia.

ENDS

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

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