



RIVER MURRAY WEEKLY REPORT

FOR THE WEEK ENDING WEDNESDAY, 14TH OCTOBER 2015

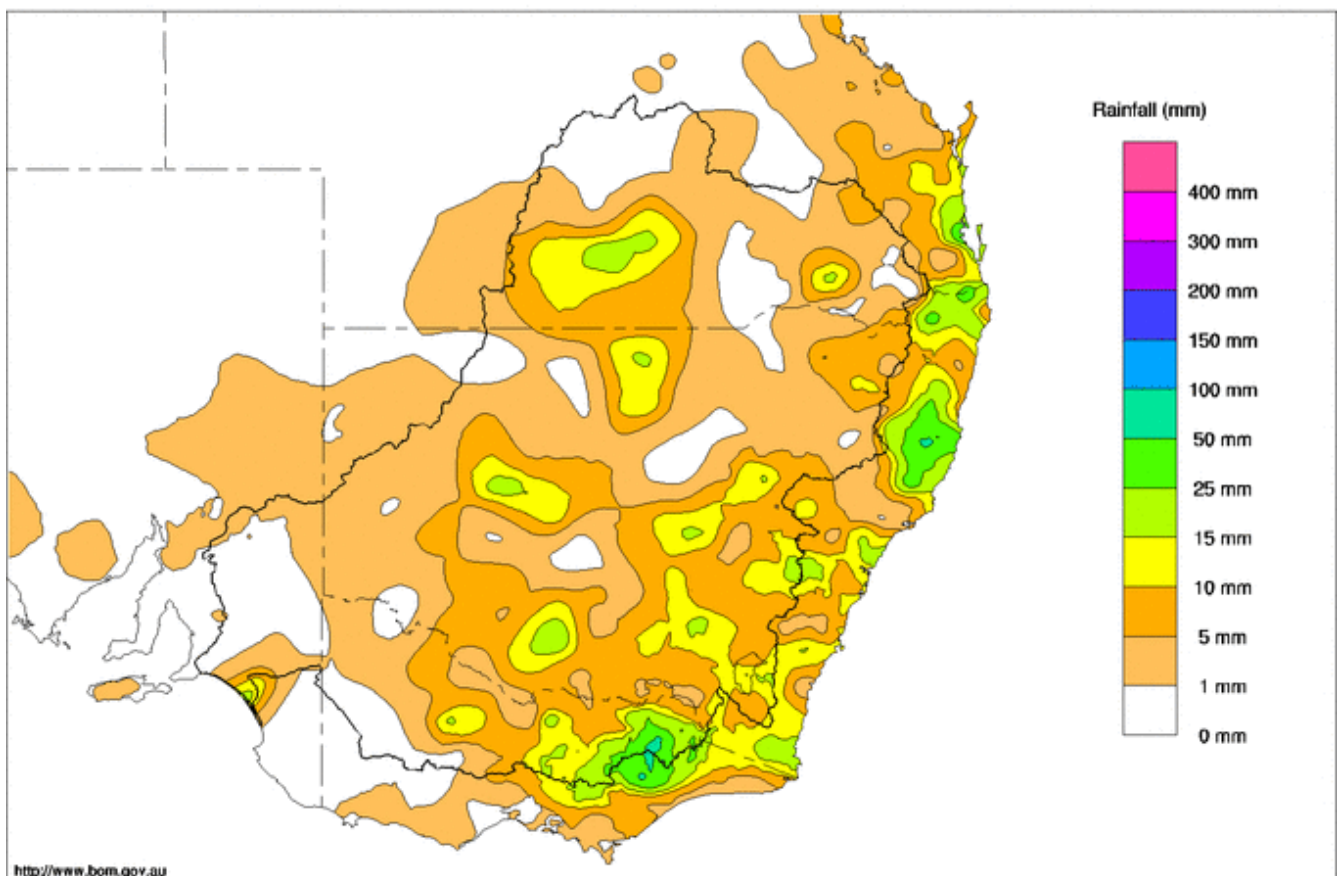
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Rainfall and inflows

During the week, a broad surface trough produced showers and thunderstorms in southeast Australia with light to moderate falls recorded around much of the basin (Map 1).

The highest totals were recorded in the Victorian Alps with 62 mm at Falls Creek AWS, 42 mm at Mount Hotham and 34 mm at Mount Buffalo and Hinnomunjie. Other totals in Victoria included 25 mm at Mount Wombat, 24 mm at Tatura ISA and 17 mm at Coonooer Bridge. In New South Wales, highest totals included 22 mm at Cootamundra, 18 mm at Trundle, 17 mm at Dubbo, 13 mm at Deniliquin AWS and 12 mm at Brewarrina. In Queensland, highest totals were recorded in the Warrego catchment, including 17 mm at Wallen and 14 mm at Cunnamulla.

Murray-Darling Rainfall Totals (mm) Week Ending 14th October 2015
Australian Bureau of Meteorology



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Issued: 14/10/2015

Map 1 - Murray-Darling Basin rainfall week ending 14th October 2015 (Source: Bureau of Meteorology)

Due to the dry state of the catchments, the rain over the upper Murray did not lead to any significant stream flow rises. On the Mitta Mitta River the flow at Hinnomunjie bridge briefly peaked at 1,700 ML/day before falling back to 900 ML/day. On the upper Murray, the flow at Biggara peaked at 1,150 ML/day and is currently flowing at 900 ML/day. On the Ovens River, the flow at Wangaratta peaked just shy of 1,000 ML/day and is now receding (currently 870 ML/day).



River Operations

- Murray, Murrumbidgee and Goulburn water allocations increase;
- Dartmouth releases to increase to 8,500 ML/day;
- Pumping to Hattah Lakes commences.

On 15 October 2015, [NSW Department of Primary Industries](#) and Victoria's [Goulburn-Murray Water](#) provided updates on water availability and allocations. In NSW the Murray general security water allocation increased by 6 % to 12% and the Murrumbidgee general security allocation increased by 2% to 29%. In Victoria, Murray high reliability water share increased by 6% to 82% and Goulburn high reliability water share increased by 3% to 72%.

MDBA total storage decreased by 107 GL this week, with the active storage now 4,220 GL (50% capacity).

At **Dartmouth** Reservoir, the storage volume fell 21 GL to 2,471 GL (64% capacity). The release, measured at Colemans, is currently 7,000 ML/day and will increase to around 8,500 ML/day in the coming week as water continues to be transferred to Hume Reservoir to assist with meeting downstream demands in coming months (see attached flow advice). Since 1 June 2015, a total volume of 700 GL has been released from Dartmouth Reservoir.

Hume storage decreased by 47 GL and is now 1,379 GL (46% capacity). The figure below provides context and shows how the actual volume of water stored in Hume Reservoir to-date is tracking compared with indicative volumes that might be expected under a range of inflow scenarios ranging from extremely dry to wet conditions in 2015-16. These scenarios were prepared earlier in the water year for a number of key locations along the River Murray System and published in MDDBA's [River Murray System annual operating plan](#). Hume storage is currently tracking around the volume expected under a dry scenario and, in light of the latest [streamflow forecasts](#) from BoM, Hume storage levels are highly likely to continue falling over the coming months. Should dry conditions persist, storage levels at Hume could be expected to fall to very low levels by autumn 2016.

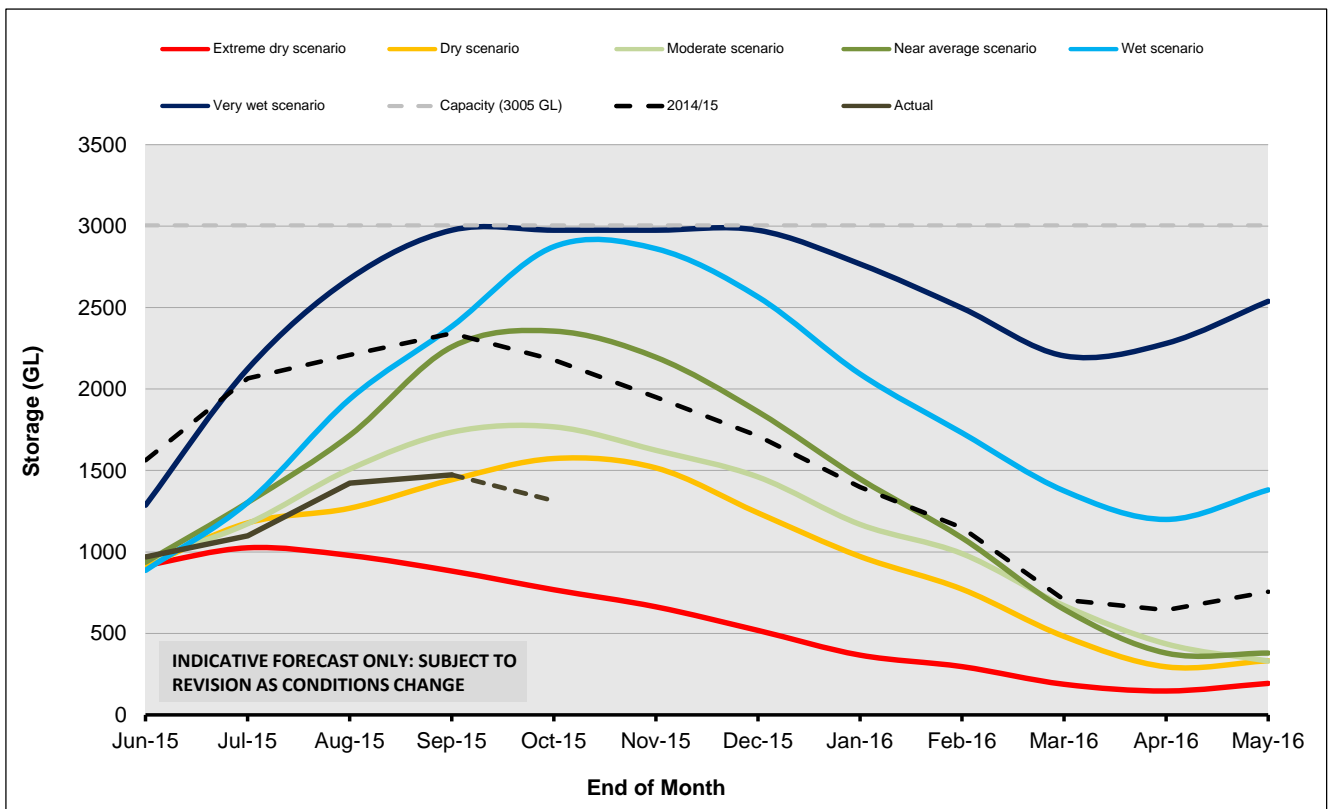


Figure 2 – Volume of water stored at Hume Reservoir (including forecast end October) compared with River Murray System annual operating plan Hume storage outlook for 2015-16.



Releases from Hume have averaged 16,700 ML/day during the week. Further downstream, the flow at Doctors point averaged 17,500 ML/day.

At Lake Mulwala, diversions at Mulwala Canal remained relatively steady averaging 3,300 ML/day for the week. Whilst Murray Irrigation Limited's (MIL) irrigation demand has eased, increased transfers to Lake Victoria by the MDBA have required water to be delivered through MIL's Edward escape. Diversions at Yarrawonga Main Channel eased to 1,400 ML/day. The Lake Mulwala pool level is 124.80m AHD.

The release from Yarrawonga Weir varied between 12,700 ML/day and 13,300 ML/day during the week. Almost all of this water is to meet downstream demands and for transfer to Lake Victoria. A small component of environmental water is also being provided to benefit the Barmah-Millewa Forest and sites further downstream. The release is expected to increase to 14,000 ML/day later in the coming week to provide a small pulse for fish spawning, before gradually receding back to channel capacity in early November.



Photo 1 – Low level inundation at Barmah Lake (photo courtesy of Matt Brown)

In the **Edward-Wakool** system, flows through the Edward and Gulpa offtakes are steady at 1,550 ML/day and 850 ML/day respectively. The flow at Toonlook gradually increased over the week due to flows exiting the Millewa forest and is currently 3,070 ML/day. The release from Edward escape has increased to 850 ML/day. In response, the flow downstream of Stevens weir has increased to 2,400 ML/day. Delivery of environmental water to Wakool River and Colligen Creek is continuing. Diversions at Wakool River regulator, Yallakool Creek regulator and Colligen Creek regulator are respectively 100 ML/day, 490 ML/day and 450 ML/day.

On the **Goulburn** River, the flow at McCoys Bridge peaked at around 6,600 ML/day. This environmental pulse is to benefit riparian vegetation. The flow at McCoys Bridge is forecast to commence falling away early next week and will cause river levels on the Murray at Echuca to fall noticeably.

At **Torrumbarry** Weir, diversions to National Channel were around 3,000 ML/day for most of the week. Diversions will reduce to around 2,200 ML/day in the coming week due to reduced irrigation and environmental demand. Higher river levels downstream at Swan Hill are allowing irrigation demand in the lower reaches of the Torrumbarry irrigation system to be met via water supplied from the Little Murray River (an anabranch of the Murray) rather than via National Channel. The release from Torrumbarry Weir has increased to around 12,000 ML/day due to inflows from the Goulburn.

Further downstream, inflow to the Murray from the **Murrumbidgee** River at Balranald has increased to 1,450 ML/day. This flow rate is above the October end of system target of 1,030 ML/day due to the delivery of inter valley trade (IVT) water. At **Euston**, the pool level is being managed at around 60 cm above the full supply level (FSL) of 47.6 m AHD and the downstream release has increased to around 8,900 ML/day.

Downstream of Euston, pumping of environmental watering into **Hattah Lakes** commenced during the week and is currently delivering around 750 ML/day. Pumping is expected to continue until around the end of October in order to help provide a connection between the River Murray and Hattah Lakes. More information is available at the [Mallee Catchment Management Authority](#) website.

At **Menindee Lakes**, the storage volume has decreased 3 GL to 96 GL (6% capacity). The release at Weir 32 remains low at around 100 ML/day.



At **Wentworth Weir** on the Murray, the pool level is being held around 10 cm above FSL to assist pumpers on the Darling River within the influence of the Wentworth weir pool. The release has decreased to around 4,000 ML/day.

At **Lock 9**, the pool level is currently 19 cm below the full supply level (FSL) of 27.4 m AHD and is expected to remain around 10 cm below FSL over summer. Pool levels at **Locks 8 and 7** are currently 25.3 m AHD (70 cm above FSL) and 22.55 m AHD (45 cm above FSL) respectively. Lock 8 pool level will reduce to 50 cm above FSL in the coming week.



Photo 2 – A lagoon filling during the raising of Lock 8 (photo courtesy of Scott Jaensch)

At **Lake Victoria**, the storage volume decreased 35 GL to 564 GL (83% capacity). The flow to South Australia is currently around 10,200 ML/day, which incorporates entitlement flows and environmental water.

At **Lock 5** and **Lock 2** the weir pools have been raised slowly to 16.75 m AHD and 6.60 m AHD respectively which are their maximum water levels for this weir pool raising event. These water levels will be maintained until early November 2015, before being lowered in small daily increments to the top of their normal operating ranges. For more information see South Australia's [River Murray flow report](#).

At the **Lower Lakes**, the five-day average water level in Lake Alexandrina is 0.8 m AHD and releases out the barrages averaged approximately 1,600 ML/day.

For media inquiries contact the Media Officer on 02 6279 0141

DAVID DREVERMAN
Executive Director, River Management



Water in Storage

Week ending Wednesday 14 Oct 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	461.97	2 471	64%	71	2 400	-21
Hume Reservoir	192.00	3 005	182.02	1 379	46%	23	1 356	-47
Lake Victoria	27.00	677	26.05	564	83%	100	464	-35
Menindee Lakes		1 731*		96	6%	(- -) #	0	-3
Total		9 269		4 510	49%	--	4 220	-107
Total Active MDBA Storage							50% ^	

Major State Storages

Burrinjuck Reservoir	1 026	733	71%	3	730	+2
Blowering Reservoir	1 631	775	48%	24	751	-48
Eildon Reservoir	3 334	1 876	56%	100	1 776	-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 13 Oct 2015

Storage	Active Storage (GL)	Weekly Change (GL)	Diversion (GL)	This Week	From 1 May 2015
Lake Eucumbene - Total	2 325	+6	Snowy-Murray	+7	221
Snowy-Murray Component	1 117	+16	Tooma-Tumut	+0	122
Target Storage	1 400		Net Diversion	7	100
			Murray 1 Release	+16	365

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)	20.9	149	Yarrowonga Main Channel (net)	10.7	70
Wakool Sys Allowance	2.9	20	Torrumbarry System + Nyah (net)	0.2	130
Western Murray Irrigation	0.6	0	Sunraysia Pumped Districts	2.7	16
Licensed Pumps	6.0	37	Licensed pumps - GMW (Nyah+u/s)	1.9	8
Lower Darling	0.2	2	Licensed pumps - LMW	6.2	41
TOTAL	30.6	208	TOTAL	21.7	265

* 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	170.5 *	
Flow this week	76.4	(10 900 ML/day)
Flow so far this month	153.3	
Flow last month	261.4	

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

	Current	Average over the last week	Average since 1 August 2015
Swan Hill	100	80	80
Euston	110	110	120
Red Cliffs	150	160	140
Merbein	160	170	140
Burtundy (Darling)	990	1 000	920
Lock 9	170	170	150
Lake Victoria	250	220	220
Berri	230	220	230
Waikerie	210	220	300
Morgan	220	230	300
Mannum	330	330	330
Murray Bridge	350	350	360
Milang (Lake Alex.)	770	760	730
Poltalloch (Lake Alex.)	520	500	560
Meningie (Lake Alb.)	2 030	2 020	2 040
Goolwa Barrages	1 050	1 020	1 000



River Levels and Flows

Week ending Wednesday 14 Oct 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	-	-	-	4 500	F	3 520	3 150
Jingellic	4.0	1.91	208.43	5 890	R	5 000	4 640
Tallandoon (Mitta Mitta River)	4.2	2.96	219.85	6 880	R	4 970	5 960
Heywoods	5.5	3.18	156.81	15 780	F	16 720	17 310
Doctors Point	5.5	3.13	151.60	16 570	F	17 580	17 890
Albury	4.3	2.19	149.63	-	-	-	-
Corowa	4.6	3.42	129.44	17 180	S	17 200	17 920
Yarrowonga Weir (d/s)	6.4	2.03	117.07	13 200	F	13 050	13 010
Tocumwal	6.4	2.69	106.53	13 610	S	13 310	13 170
Torrumbarry Weir (d/s)	7.3	3.58	82.13	11 960	R	10 810	6 570
Swan Hill	4.5	1.83	64.75	10 280	F	8 110	5 620
Wakool Junction	8.8	3.59	52.71	10 460	R	8 500	7 650
Euston Weir (d/s)	9.1	1.72	43.56	8 880	R	7 750	8 320
Mildura Weir (d/s)	-	-	-	6 690	F	6 850	8 070
Wentworth Weir (d/s)	7.3	2.83	27.59	3 890	S	5 710	9 050
Rufus Junction	-	4.02	20.95	9 970	F	10 430	10 230
Blanchetown (Lock 1 d/s)	-	0.95	-	8 900	S	8 590	7 540
Tributaries							
Kiewa at Bandiana	2.8	1.43	154.66	1 180	F	1 150	1 160
Ovens at Wangaratta	11.9	8.10	145.78	880	F	810	750
Goulburn at McCoys Bridge	9.0	4.24	95.66	6 590	S	6 250	2 800
Edward at Stevens Weir (d/s)	5.5	2.28	82.05	2 430	F	2 090	1 640
Edward at Liewah	-	2.42	57.80	1 810	S	1 740	1 600
Wakool at Stoney Crossing	-	1.58	55.07	790	R	710	720
Murrumbidgee at Balranald	5.0	1.85	57.81	1 450	R	1 280	1 320
Barwon at Mungindi	6.1	3.20	-	80	F	110	190
Darling at Bourke	9.0	4.09	-	330	F	350	380
Darling at Burtundy Rocks	-	0.70	-	0	F	0	0

Natural Inflow to Hume	6 360	6 790
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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	+0.45	+1.70
No. 26 Torrumbarry	86.05	+0.00	-	No. 6 Murtho	19.25	-0.00	+0.61
No. 15 Euston	47.60	+0.64	-	No. 5 Renmark	16.30	+0.44	+0.38
No. 11 Mildura	34.40	-0.01	+0.19	No. 4 Bookpurnong	13.20	+0.03	+1.08
No. 10 Wentworth	30.80	+0.10	+0.19	No. 3 Overland Corner	9.80	+0.00	+0.74
No. 9 Kulnine	27.40	-0.19	+0.73	No. 2 Waikerie	6.10	+0.50	+0.30
No. 8 Wangumma	24.60	+0.70	+0.55	No. 1 Blanchetown	3.20	-0.07	+0.20

Lower Lakes FSL = 0.75 m AHD

Lake Alexandrina average level for the past 5 days (m AHD)	0.80
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Barrages

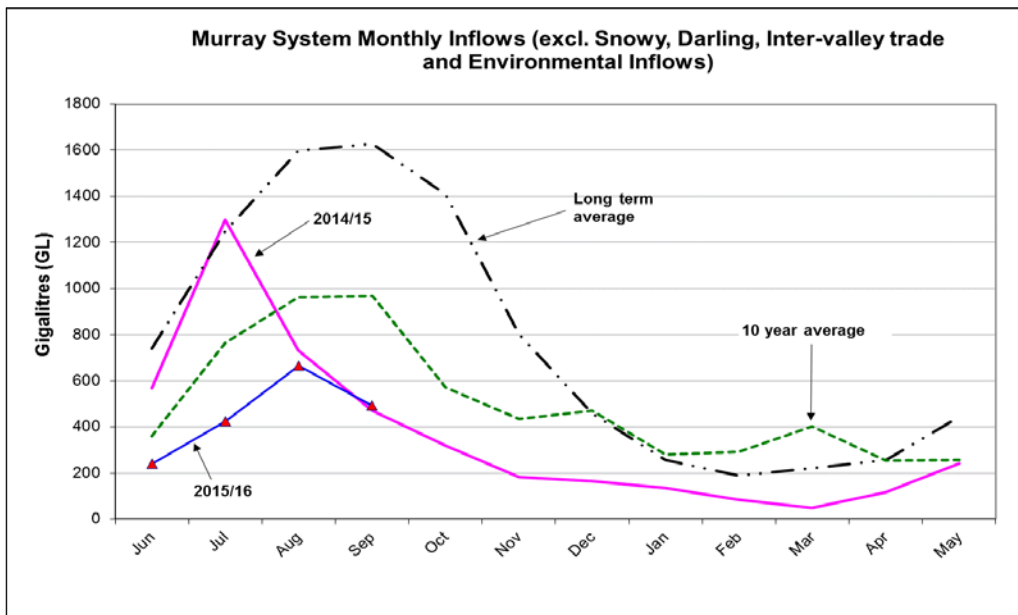
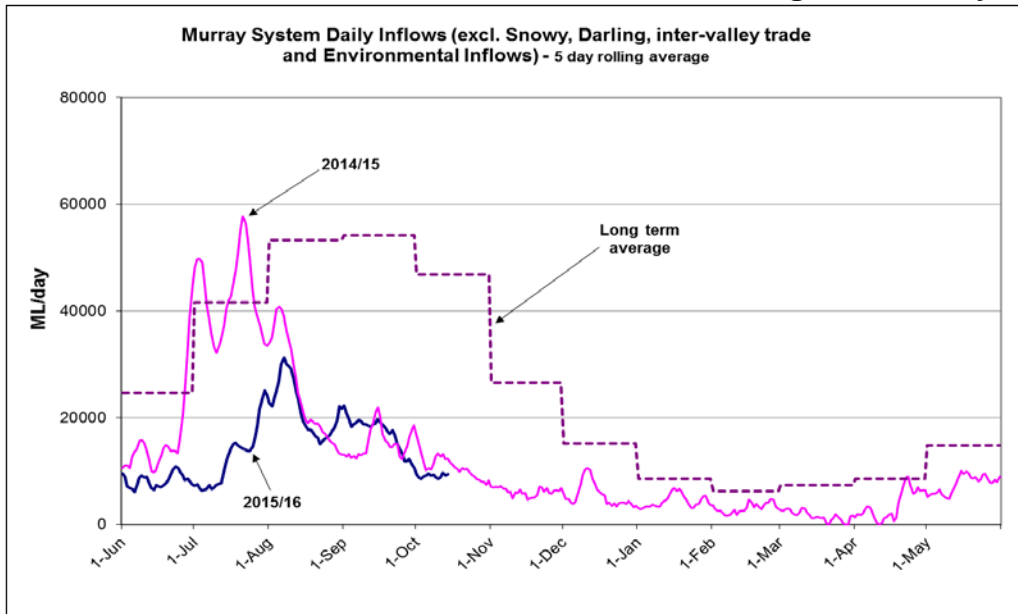
Fishways at Barrages

	Openings	Level (m AHD)	No. Open	Rock Ramp	Vertical Slot
Goolwa	128 openings	0.83	1	-	Open
Mundoo	26 openings	0.82	All closed	-	-
Boundary Creek	6 openings	-	0.1	-	-
Ewe Island	111 gates	-	All closed	-	-
Tauwichee	322 gates	0.83	4	Open	Open

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



Week ending Wednesday 14 Oct 2015



State Allocations (as at 15 Oct 2015)

NSW - Murray Valley

High security	97%
General security	12%

Victorian - Murray Valley

High reliability	82%
Low reliability	0%

NSW - Murrumbidgee Valley

High security	95%
General security	29%

Victorian - Goulburn Valley

High reliability	72%
Low reliability	0%

NSW - Lower Darling

High security	20%
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>

Mitta Mitta Flow Advice

15 October 2015



Mitta Mitta flow update

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

Releases from Dartmouth Dam will increase to 8,500 megalitres per day (ML/day) this Friday to transfer water to Hume Reservoir. To allow for routine maintenance work, releases will be gradually reduced to 6,000 ML/day in late October. They are then expected to return to 8,500 ML/day in early November.

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

Forecast Mitta Mitta flows for October

Date	Releases from Dartmouth Dam	Colemans Gauge		Tallandoon Gauge	
		Flow (ML/day)	Height (m)	Flow (ML/day)	Height (m)
Friday 16 October	Flows start increasing	7,000	2.48	7,100	2.98
Saturday 17 October	Flows steady	8,500	2.65	8,600	3.22
Wednesday 21 October	Flows start decreasing	8,500	2.65	8,600	3.22
Saturday 31 October	Flows start increasing	6,000	2.36	6,200	2.84
Sunday 1 November	Flows steady	8,500	2.65	8,600	3.22

If dry conditions persist, releases are expected to be above 5,000 ML/day over summer.

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-data/current-information-forecasts/storage-volumes

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: www.mdba.gov.au/river-data/current-information-forecasts/weekly-report

ENDS

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

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