



RIVER MURRAY WEEKLY REPORT

FOR THE WEEK ENDING WEDNESDAY, 29TH JULY 2015

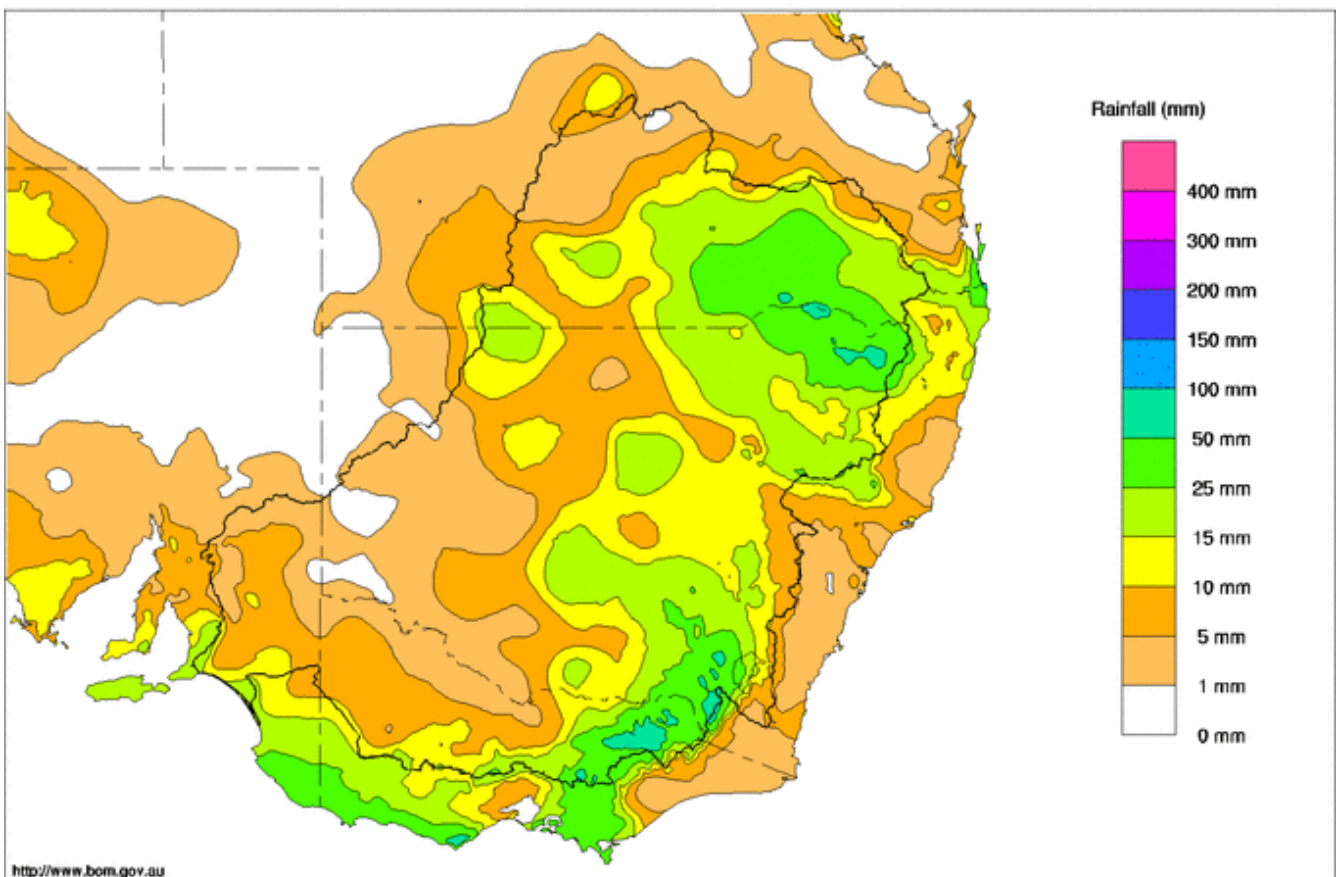
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Rainfall and Inflows

Rainfall was widespread across the Murray-Darling Basin this week with the highest totals recorded in the Victorian Alps, the Snowy Mountains in New South Wales, northern New South Wales and southern Queensland (Map 1).

The highest weekly totals fell in the upper northeast of Victoria and included 142 mm at Rocky Valley, 123 mm at Mt Buffalo and 91 mm at Harris Lane. Notable totals in NSW included 57 mm at Cabramurra AWS and 43 mm at Burrinjuck Dam in the southwest slopes, 68 mm at Emmaville and 58 mm at Glen Innes Airport AWS in the northern tablelands, and 60 mm at Warialda and 57 mm at Wallangra in the northwest slopes. In Queensland the highest totals included 42 mm at Goondiwindi and 41 mm at Meandarra in the Darling Downs.

Murray-Darling Rainfall Totals (mm) Week Ending 29th July 2015
Australian Bureau of Meteorology



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Map 1 – Murray-Darling Basin rainfall week ending 29th July 2015 (Source: Bureau of Meteorology) Issued: 29/07/2015

Rain this week prompted renewed stream flow rises along the upper Murray tributaries with many sites recording their highest flows this year. However, River Murray System inflows are still well below the long-term average for this time of year (see graph on Page 6). On the Mitta Mitta River, the flow at Hinnomunjie Bridge peaked at 2,900 ML/day. On the upper Murray at Biggara, the flow peaked at 3,200 ML/day. Flow along the Ovens River at Rocky Point peaked at 7,900 ML/day.



River Operations

- Irrigation areas commence channel system refilling;
- Mildura Weir pool refilling;
- Weir pool levels at Locks 7, 8, 9 and 15 to rise over the coming months.

MDBA total storage increased by 13 GL this week. The active storage is now 4,143 GL (49% capacity).

The storage volume in **Dartmouth** Reservoir increased by 4 GL to 2,784 GL (72% capacity) and the release was increased from 2,600 to 6,800 ML/day late in the week. Higher release rates are expected to continue over the coming weeks to provide further bulk transfers of water from Dartmouth to Hume Reservoirs to meet the coming season's requirements.

Hume Reservoir storage decreased by 3 GL this week and is now 1,089 GL (36% capacity). Inflows reached around 16,000 ML/day and averaged around 11,000 ML/day during the week. The release from Hume reached 14,000 ML/day, and averaged 11,600 ML/day in order to meet downstream requirements including the delivery of environmental entitlements.

The level in **Lake Mulwala** continued increasing this week, rising around 1.2 m to 123.96 m AHD or 0.74 m below the normal operating level (124.7 m AHD). The lake will continue rising and is expected to be close to the Full Supply Level (FSL) of 124.9 m AHD later next week. Diversions at the major irrigation off-takes commenced this week as the irrigation companies began filling their irrigation supply systems. The flow downstream of **Yarrawonga Weir** is currently 10,500 ML/day and expected to increase to around 12,000 ML/day over the coming days. This flow pulse is being made using environmental water released from Hume Reservoir and will provide environmental benefits through the Barmah-Millewa Forest and to other sites along the length of the river all the way to the Murray Mouth in South Australia.

On the **Edward-Wakool** system, the combined flow through the Edward River and Gulpa Creek offtakes averaged 1,300 ML/day. At Stevens Weir, the pool is gradually re-filling in preparation for the up-coming irrigation season. The pool level increased from 2.23 to 3.02 m on the local gauge this week. The release downstream of Stevens Weir has reduced to 860 ML/day. Downstream on the Edward River at Liewah, the flow is 1,440 ML/day.

On the **Goulburn** River, the flow remained fairly steady averaging around 700 ML/day. At Echuca, the water level remained relatively steady this week. However being situated in the upper reach of the Torrumbarry Weir pool, the water level at Echuca can vary significantly in response to changing inflows from the Goulburn River and River Murray upstream.

At **Torrumbarry** Weir, the diversion at National Channel increased to 1,200 ML/day. This includes about 450 ML/day of environmental water to maintain winter base flows through Gunbower Creek as well as water for channel filling ahead of the up-coming irrigation season. Flows downstream of Torrumbarry Weir reduced to around 4,000 ML/day, but are expected to increase over the coming week to around 7,500 ML/day.

On the **Murrumbidgee** River, the flow at Balranald averaged 1,500 ML/day and is expected to be around this rate over the coming week.

At **Euston** Weir, the level is currently 47.83 m AHD (23 cm above FSL). Operations will target a pool level around 25 cm above FSL in August, increasing to 50 cm above FSL in September as part of a trial to introduce variations in weir pool levels to achieve a more natural wetting and drying cycle for the riverine environment. This trial at Euston Weir is part of a broader weir pool variability program that includes Weirs and Locks 7, 8 and 9 in 2015-16. At Weirs and Locks 7, 8 and 9, the pool levels will start to gradually increase to around 25 cm, 60 cm and 20 cm above FSL in early August (see attached media release for more details).



Figure 1 – Paddle Steamer Emmylou on the river Murray at Echuca over the weekend (Photo: Tom Zouch, MDBA)

At **Mildura Weir**, the weir pool is now refilling (currently 33.08 m AHD or 1.3 m below the FSL of 34.4 m AHD). The flow downstream of Mildura Weir has fluctuated during recent days due to the weir removal and re-instatement process, with further fluctuations expected over the coming days as the weir pool is re-filled.

Storage in the **Menindee Lakes** continues to creep up. There was an increase of 1 GL this week, taking the volume to 97 GL (6% capacity). Release of a small replenishing flow into the upper reaches of the lower Darling River is currently underway. For more information on the management of Menindee Lakes, see the latest [NSW DPI communique](#).

Storage at **Lake Victoria** increased by 11 GL to 464 GL (69 % capacity). The flow into **South Australia** averaged 6,200 ML/day. A portion of this flow includes the continued delivery of environmental water originating from Hume Storage and the Goulburn River several weeks' ago.

At the **Lower Lakes**, the five day average level at Lake Alexandrina is 0.76 m AHD (1 cm above FSL). Releases through the barrages are continuing when conditions allow. There are currently 3 gates open at Goolwa barrage and 18 gates at Tauwitchere and a total barrage flow estimated at around 4,400 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 29 Jul 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	468.00	2 784	72%	71	2 713	+4
Hume Reservoir	192.00	3 005	179.62	1 089	36%	23	1 066	-3
Lake Victoria	27.00	677	25.15	464	69%	100	364	+11
Menindee Lakes		1 731*		97	6%	(- -) #	0	+1
Total		9 269		4 434	48%	--	4 143	+13
Total Active MDBA Storage							49% ^	

Major State Storages

Burrinjuck Reservoir	1 026	556	54%	3	553	+23
Blowering Reservoir	1 631	633	39%	24	609	+35
Eildon Reservoir	3 334	1 921	58%	100	1 821	+32

* 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 28 Jul 2015

Storage	Active Storage (GL)	Weekly Change (GL)	Diversions (GL)	This Week	From 1 May 2015
Lake Eucumbene - Total	2 092	+5	Snowy-Murray	+6	119
Snowy-Murray Component	1 056	+5	Tooma-Tumut	+7	51
Target Storage	1 170		Net Diversion	-1	67
			Murray 1 Release	+9	171

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)	1.8	2	Yarrowonga Main Channel (net)	1.3	1
Wakool Sys Allowance	0	0	Torrumbarry System + Nyah (net)	2.3	2
Western Murray Irrigation	0.0	0	Sunraysia Pumped Districts	0	0
Licensed Pumps	0.4	1	Licensed pumps - GMW (Nyah+u/s)	0	0
Lower Darling	0.1	0	Licensed pumps - LMW	0.9	4
TOTAL	2.3	3	TOTAL	4.5	7

* 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	108.5 *
Flow this week	43.4
Flow so far this month	219.3
Flow last month	114.4

(6 200 ML/day)

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

	Current	Average over the last week	Average since 1 August 2014
Swan Hill	70	70	80
Euston	105	123	100
Red Cliffs	230	210	130
Merbein	260	200	140
Burtundy (Darling)	900	900	840
Lock 9	150	160	140
Lake Victoria	200	190	200
Berri	300	300	230
Waikerie	330	320	290
Morgan	310	310	280
Mannum	340	350	320
Murray Bridge	360	350	350
Milang (Lake Alex.)	730	740	750
Poltalloch (Lake Alex.)	640	580	640
Meningie (Lake Alb.)	2 010	2 080	2 380
Goolwa Barrages	1 500	1 470	1 630



River Levels and Flows

Week ending Wednesday 29 Jul 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	-	-	-	3 100	F	2 230	3 500
Jingellic	4.0	2.16	208.68	8 100	F	6 280	6 580
Tallandoon (Mitta Mitta River)	4.2	3.01	219.90	7 250	R	4 080	3 520
Heywoods	5.5	2.93	156.56	13 040	F	11 630	4 370
Doctors Point	5.5	3.00	151.47	14 960	F	13 520	5 720
Albury	4.3	2.02	149.46	-	-	-	-
Corowa	4.6	3.15	129.17	15 270	R	10 560	6 390
Yarrowonga Weir (d/s)	6.4	1.69	116.73	10 480	R	6 510	6 440
Tocumwal	6.4	1.94	105.78	7 840	R	5 750	6 600
Torrumbarry Weir (d/s)	7.3	1.38	79.93	3 800	F	5 050	5 070
Swan Hill	4.5	1.11	64.03	5 380	F	5 490	4 960
Wakool Junction	8.8	2.89	52.01	7 410	S	7 120	7 140
Euston Weir (d/s)	9.1	1.63	43.47	8 360	F	8 010	8 570
Mildura Weir (d/s)	-	-	-	4 530	F	8 150	7 460
Wentworth Weir (d/s)	7.3	2.80	27.56	5 660	R	8 720	8 750
Rufus Junction	-	3.42	20.35	6 050	R	5 860	7 190
Blanchetown (Lock 1 d/s)	-	0.76	-	5 030	S	5 850	8 480
Tributaries							
Kiewa at Bandiana	2.8	2.29	155.52	2 650	F	2 100	1 620
Ovens at Wangaratta	11.9	10.20	147.88	7 780	F	5 440	3 310
Goulburn at McCoys Bridge	9.0	1.32	92.74	670	S	680	680
Edward at Stevens Weir (d/s)	5.5	1.10	80.87	860	F	1 220	1 240
Edward at Liewah	-	2.10	57.48	1 440	S	1 440	1 530
Wakool at Stoney Crossing	-	1.29	54.78	210	F	210	270
Murrumbidgee at Balranald	5.0	2.05	58.01	1 660	F	1 550	1 080
Barwon at Mungindi	6.1	3.34	-	390	R	280	340
Darling at Bourke	9.0	4.12	-	450	F	530	580
Darling at Burtundy Rocks	-	0.88	-	0	F	0	0

Natural Inflow to Hume (i.e. Pre Dartmouth & Snowy Mountains scheme)	13 450	7 200
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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	-0.94	-	No. 7 Rufus River	22.10	-0.06	+1.12
No. 26 Torrumbarry	86.05	+0.00	-	No. 6 Murtho	19.25	+0.01	+0.06
No. 15 Euston	47.60	+0.23	-	No. 5 Renmark	16.30	+0.01	+0.21
No. 11 Mildura	34.40	-1.32	+0.11	No. 4 Bookpurnong	13.20	+0.02	+0.62
No. 10 Wentworth	30.80	+0.02	+0.16	No. 3 Overland Corner	9.80	+0.04	+0.18
No. 9 Kulnine	27.40	-0.07	-0.04	No. 2 Waikerie	6.10	+0.01	+0.14
No. 8 Wangumma	24.60	-0.03	-0.02	No. 1 Blanchetown	3.20	-0.06	+0.01

Lower Lakes FSL = 0.75 m AHD

Lake Alexandrina average level for the past 5 days (m AHD)	0.76
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Barrages

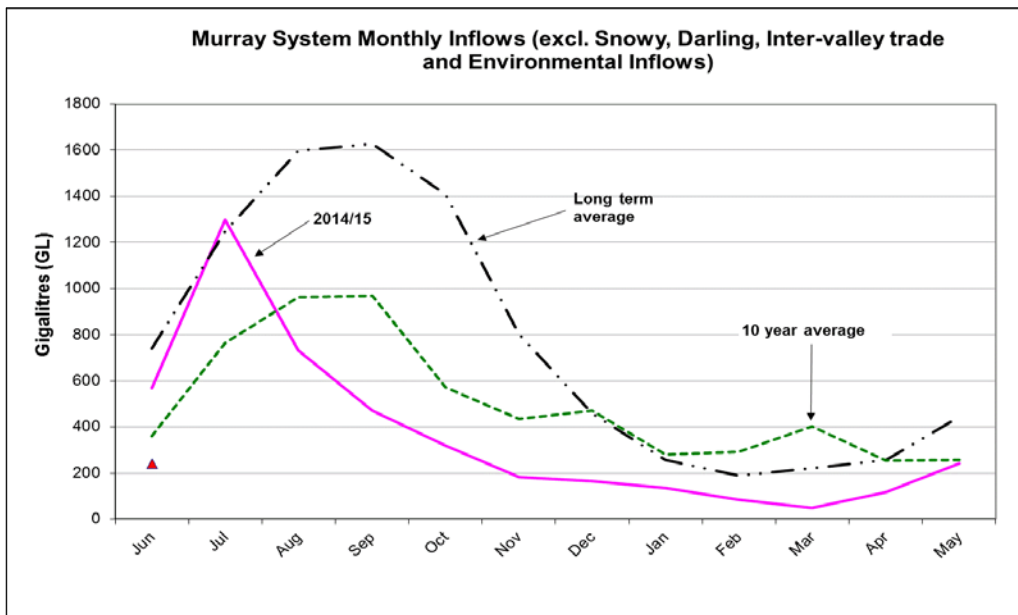
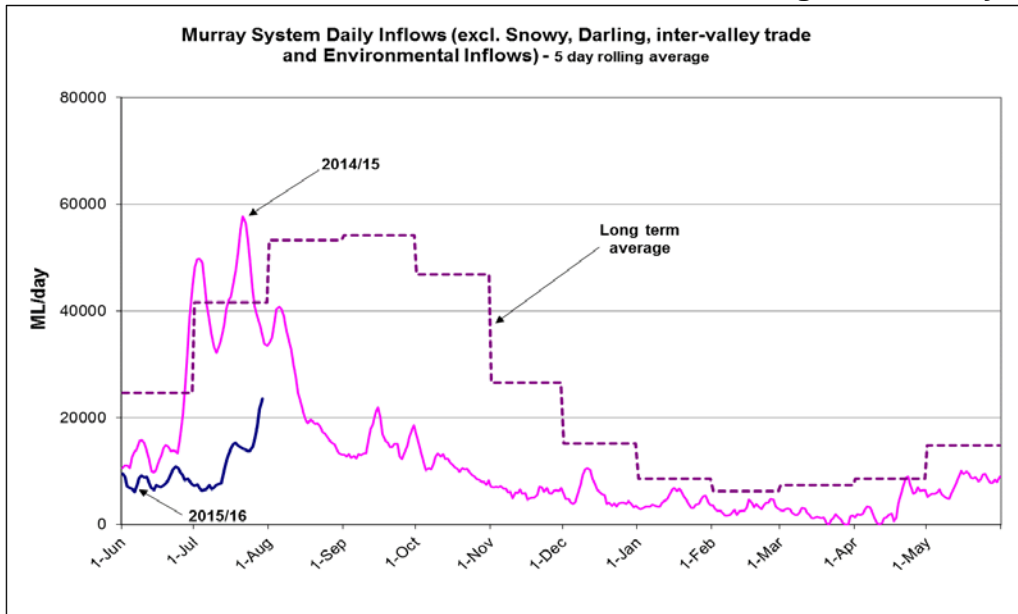
Fishways at Barrages

	Openings	Level (m AHD)	No. Open	Rock Ramp	Vertical Slot
Goolwa	128 openings	0.81	3	-	Open
Mundoo	26 openings	0.76	All closed	-	-
Boundary Creek	6 openings	-	0.1	-	-
Ewe Island	111 gates	-	All closed	-	-
Tauwitchere	322 gates	0.81	18	Open	Open

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



Week ending Wednesday 29 Jul 2015



State Allocations (as at 29 Jul 2015)

NSW - Murray Valley

High security	80%
General security	0%

Victorian - Murray Valley

High reliability	37%
Low reliability	0%

NSW - Murrumbidgee Valley

High security	95%
General security	12%

Victorian - Goulburn Valley

High reliability	45%
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>

Media Release

31 July 2015



Changes in mid-Murray weir pool levels from August

Starting next week, landholders and river users on the River Murray are advised to take into account changing weir pool heights at Lock 15 at Robinvale and at Locks 7, 8 and 9 between Wentworth and the South Australian Border.

Historically weir pool levels have been kept at a reasonably constant height, but as part of a trial to restore a more natural wetting and drying cycle, the MDBA will raise and lower these pool levels between August 2015 and June 2016.

The Lock 15 weir pool level is expected to increase by up to 60cm above the full supply level (FSL) over late-winter and spring, returning to FSL over summer and be lowered by up to 30cm below FSL by mid-autumn.

The weir pool levels at Lock 7, 8 and 9 are expected to increase by up to 50cm, 80cm and 20cm respectively above the FSL over late-winter and early spring, and be lowered by up to 50cm, 80cm and 10cm respectively below FSL over late-spring and summer.

The table below outlines the plan on a month-by-month basis. These are indicative water levels only; actual river operations may differ.

Pool height relative to full supply level (metres)

Month	Lock 7	Lock 8	Lock 9	Lock 15
July 2015	+0	+0	+0	+0
August	+0.25	+0.60	+0.20	+0.25
September	+0.50	+0.80	+0.20	+0.50
October	+0.25	+0.50	-0.10	+0.60
November	-0.50	-0.50	-0.10	+0.40
December	-0.50	-0.80	-0.10	+0
January 2016	-0.25	-0.80	-0.10	+0
February	-0.25	-0.60	-0.10	+0
March	+0	-0.60	+0	+0
April	+0	-0.25	+0	-0.20
May	+0	+0	+0	-0.30
June	+0	+0.40	+0	-0.30

The trial is being conducted by the MDBA in cooperation with the NSW Department of Primary Industries, Water NSW, SA Water and the Mallee Catchment Management Authority.

The MDBA will issue a revised flow advice if there are any significant changes to the plan, which will also be available on the MDBA website at www.mdba.gov.au.

River users wanting more information on river heights can contact the MDBA on (02) 6279 0100 or receive updates at www.mdba.gov.au/river-data/current-information-forecasts/weekly-report.

Live river data for the River Murray system can be seen at: <http://livedata.mdba.gov.au>

ENDS

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

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