



RIVER MURRAY WEEKLY REPORT

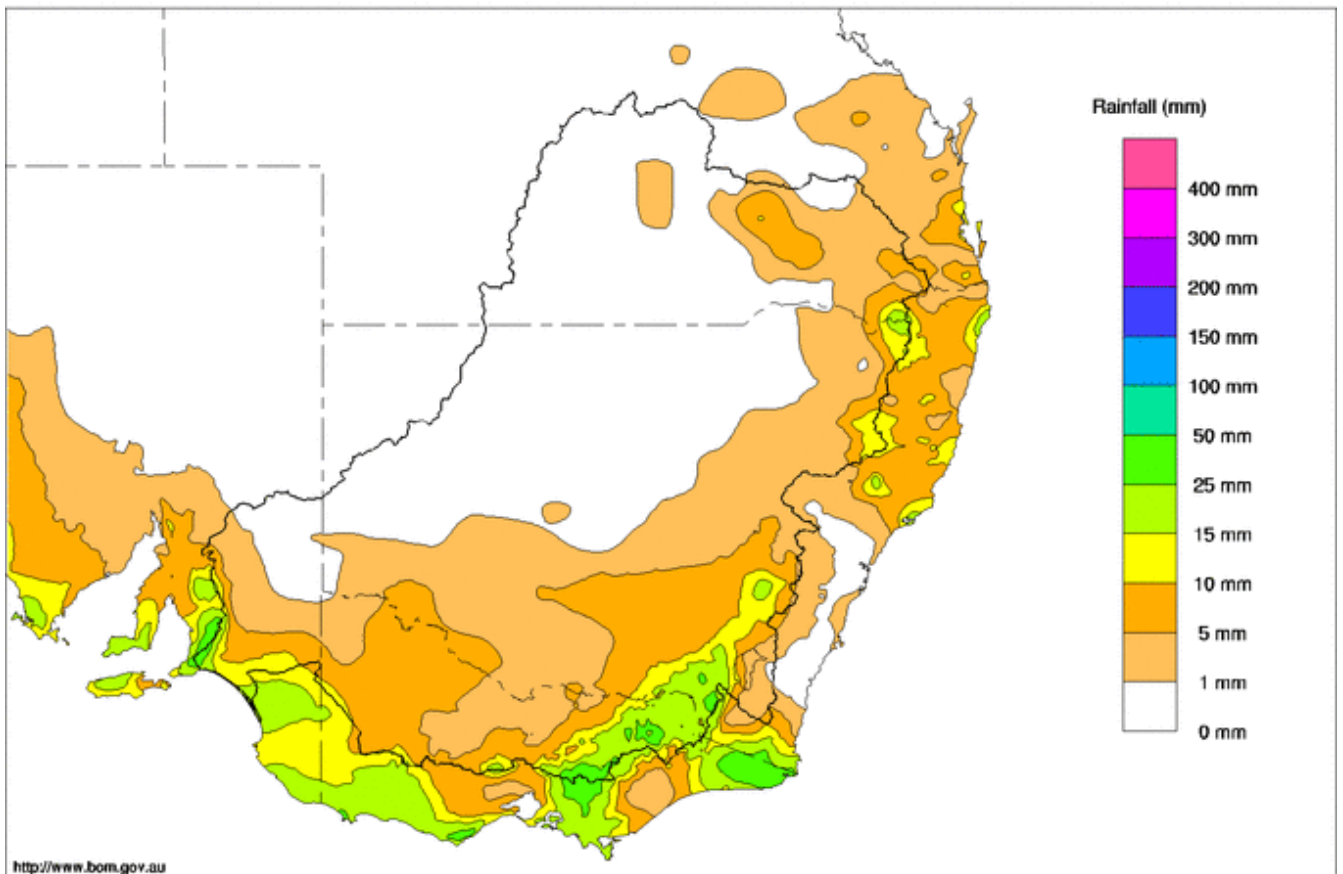
FOR THE WEEK ENDING WEDNESDAY, 23 JULY 2014

Trim Ref: D14/27822

Rainfall and Inflows

Another cold front passed over south-east Australia this week, bringing rainfall and isolated shower activity throughout much of the southern Basin (Map 1). The highest weekly rainfall totals were recorded in the Victorian Alps, including 53 mm at Falls Creek and 48 mm at Mt Buffalo. Other notable totals throughout the Basin included 31 mm at Mount Barker in South Australia, 21 mm at Khancoban in NSW and 14 mm at Dalveen in Queensland's upper Condamine River catchment.

Murray-Darling Rainfall Totals (mm) Week Ending 23rd July 2014
Product of the National Climate Centre



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

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Issued: 23/07/2014

Map 1 - Murray-Darling Basin rainfall for the week ending 23 July 2014 (Source: Bureau of Meteorology)

Stream flows in the upper Murray tributaries peaked early in the week and are now slowly receding. On the Mitta Mitta River at Hinnomunjie, the flow reached 1,800 ML/day and has now reduced to 1,000 ML/day. On the upper Murray, the flow at Biggara rose to 2,900 ML/day before falling away to 1,800 ML/day. On the Ovens River, the flow peaked at 22,500 ML/day over the weekend before reducing to 11,000 ML/day. This was the highest flow recorded at Wangaratta since August 2013. Soil profiles throughout the upper catchments are now fairly saturated, and any further rainfall should generate a positive stream flow response.



River Operations

- Much of the River Murray is currently unregulated. However operators remain alert for a potential return to drier conditions;
- Euston weir pool being raised up to 40 cm above Full Supply Level;
- Mildura weir pool drawdown underway to enable trestle upgrade works.

Inflows from the Ovens River over the past week have contributed to the announcement of unregulated flows in the River Murray from Barmah through to the South Australian border (including the Edward River). Within the River Murray system, unregulated flows are defined as flows that are in excess of downstream water demand (including South Australia entitlement), and which cannot be captured within Lake Victoria – the most downstream storage in the system.

Whilst recent conditions throughout the upper Murray system have been reasonably wet, advice from the Bureau of Meteorology (BoM) indicates a drier than normal August to October period is likely for much of the River Murray region (<http://www.bom.gov.au/climate/ahead>). On the longer term outlook, the majority of climate models assessed by the BoM also suggest a weak El Niño event remains likely for the spring of 2014. MDBA's river operators monitor these climate outlooks closely and consider a range of possible inflow scenarios for the year ahead. These considerations are factored into the River Murray System Annual Operating Plan, with the latest version for the 2014-15 water year due to be published on the MDBA website next week (www.mdba.gov.au).

MDBA total storage rose by 208 GL this week, with the active storage now 5,897 GL (70% capacity).

At **Dartmouth** Reservoir, the storage volume increased by 26 GL to 3,856 GL (93% capacity). The release is steady at 200 ML/day at Colemans gauge. Inflows into **Hume** Reservoir over the past week averaged 20,000 ML/day, with the storage rising 139 GL to 1,958 GL (65% capacity). The release remains at the minimum flow of 600 ML/day. Inflows from the Kiewa River downstream of Hume maintained the flow in the Murray at Doctors Point at an average of 4,500 ML/day.

At **Yarrowonga** Weir, the downstream release was raised up to 24,000 ML/day as peak inflows from the Ovens River were passed. With the Ovens now receding and no significant rain forecast, the release from Yarrowonga will be steadily reduced over the coming week. The pool level of Lake Mulwala is currently 124.81 m AHD and planned to be gradually drawn back to around 124.72 m AHD. Preparations for the coming irrigation season are underway at the major irrigation offtakes, with Yarrowonga Main Channel commencing diversions this week at 100 ML/day and Mulwala Canal due to commence channel filling next week.

In the **Edward-Wakool** system, flows through the Edward and Gulpa River offtakes are 1,950 ML/day and 750 ML/day respectively. Both these offtakes are fully open, with their flow varying in response to the water level in the Murray at Picnic Point. Downstream of the offtakes at Toonalook, the flow is steady at around 5,000 ML/day with approximately 2,400 ML/day entering from the Murray via the Millewa Forest. At Stevens Weir, the flow downstream is being maintained at around 4,000 ML/day.

On the **Goulburn** River, the flow at McCoys Bridge peaked at 9,100 ML/day on Tuesday and is now gradually receding. This flow was primarily due to tributaries entering the Goulburn River downstream of Lake Eildon. At **Torumbarry** Weir, diversions at National Channel have increased from 700 ML/day up to 1,600 ML/day. The majority of this flow is being diverted for environmental benefit, with around 700 ML/day currently being directed into Gunbower Forest (Figure 1) and 400 ML/day passing into Gunbower Creek. Both these environmental flows are planned to be gradually increased over the coming week.

On the **Murrumbidgee** River, the flow at Balranald is currently steady at 2,200 ML/day. At **Euston** Weir, the pool level is 30 cm above the Full Supply Level (FSL) of 47.6 m AHD. The pool is planned to be gradually raised over the coming week toward 40 cm above FSL (see attached flow advice for more details). The flow downstream of Euston Weir is currently 15,600 ML/day and forecast to continue rising up to around 21,000 ML/day over the next week.



Figure 1 – Water flowing beneath Dry Swamp track bridge in Gunbower Forest (Source: North Central Catchment Management Authority)

At **Mildura Weir**, the pool level is currently being drawn down to enable upgrade works to the weir's trestles (see attached media release for more details). The weir pool is currently 40 cm below FSL and will be drawn down over coming days to about 3.0 m below FSL, depending on river flows.

Storage in **Menindee Lakes** decreased by 3 GL this week to 369 GL (21% capacity). The release at Weir 32 remains steady at around 200 ML/day and the flow downstream at Burtundy is 140 ML/day. At **Wentworth Weir**, the downstream flow increased this week from 10,000 ML/day to 15,000 ML/day. The flow past Wentworth is forecast to continue rising over the coming week towards 20,000 ML/day.

At **Lake Victoria**, the storage volume increased by 46 GL to 547 GL (81% capacity). Inflows to Lake Victoria are currently 7,000 ML/day and planned to be reduced over the coming week, which will slow the rate that Lake Victoria fills. These inflows are being reduced because there are sufficient upstream flows in transit to ensure that the storage can be filled to FSL at a later date. Under the Lake Victoria Operating Strategy, MDBA aims to fill the storage as late as possible. This provides benefits for the lake's foreshore vegetation, which assists in the protection of important cultural heritage material.

At the **Lower Lakes**, the 5-day average water level in Lake Alexandrina is currently 0.75 m AHD. The current release from the barrages is estimated to be around 5,000 ML/day. Tide and swell forecast over the coming week are forecast to be favourable for continuing releases through the barrages.

For media inquiries contact the Media Officer on 02 6279 0141

DAVID DREVERMAN
Executive Director, River Management



Water in Storage

Week ending Wednesday 23 Jul 2014

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	481.80	3 586	93%	71	3 515	+26
Hume Reservoir	192.00	3 005	186.13	1 958	65%	23	1 935	+139
Lake Victoria	27.00	677	25.90	547	81%	100	447	+46
Menindee Lakes		1 731*		369	21%	(-) #	0	-3
Total		9 269		6 460	70%	--	5 897	+208
Total Active MDBA Storage							70% ^	

Major State Storages

Burrinjuck Reservoir	1 026	738	72%	3	735	+34
Blowering Reservoir	1 631	1 125	69%	24	1 101	+37
Eildon Reservoir	3 334	2 656	80%	100	2 556	+75

* 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 22 Jul 2014

Storage	Active Storage (GL)	Weekly Change (GL)	Diversions (GL)	This Week	From 1 May 2014
Lake Eucumbene - Total	1 638	n/a	Snowy-Murray	+12	131
Snowy-Murray Component	850	n/a	Tooma-Tumut	+9	84
Target Storage	1 170		Net Diversions	3	48
			Murray 1 Release	+19	205

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)	0.0	0	Yarrowonga Main Channel (net)	0.2	0
Wakool Sys Allowance	0.0	2	Torrumbarry System + Nyah (net)	4.7	11
Western Murray Irrigation	0.1	0	Sunraysia Pumped Districts	0.4	1
Licensed Pumps	0.6	2	Licensed pumps - GMW (Nyah+u/s)	0	0
Lower Darling	0.1	0	Licensed pumps - LMW	0.9	3
TOTAL	0.8	4	TOTAL	6.2	15

* 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 unregulated flows.

Entitlement this month	108.5 *	
Flow this week	39.6	(5 700 ML/day)
Flow so far this month	106.8	
Flow last month	96.2	

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

	Current	Average over the last week	Average since 1 August 2013
Swan Hill	100	150	110
Euston	130	140	110
Red Cliffs	210	170	130
Merbein	170	190	140
Burtundy (Darling)	650	640	510
Lock 9	240	220	180
Lake Victoria	220	220	240
Berri	350	360	290
Waikerie	490	470	340
Morgan	450	460	340
Mannum	400	370	360
Murray Bridge	500	470	380
Milang (Lake Alex.)	800	710	680
Poltalloch (Lake Alex.)	730	720	580
Meningie (Lake Alb.)	2 190	2 230	2 580
Goolwa Barrages	950	1 560	1 560



River Levels and Flows

Week ending Wednesday 23 Jul 2014

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	-	-	-	6 600	F	4 440	4 350
Jingellic	4.0	2.63	209.15	12 860	R	13 630	11 460
Tallandoon (Mitta Mitta River)	4.2	1.85	218.74	1 720	F	2 030	1 860
Heywoods	5.5	1.30	154.93	600	S	600	600
Doctors Point	5.5	1.97	150.44	4 070	R	4 510	4 070
Albury	4.3	1.04	148.48	-	-	-	-
Corowa	3.8	1.35	127.37	4 790	F	5 110	4 650
Yarrowonga Weir (d/s)	6.4	3.23	118.27	24 120	R	20 570	15 730
Tocumwal	6.4	3.61	107.45	21 000	R	18 680	14 670
Torrumbarry Weir (d/s)	7.3	4.66	83.21	15 880	R	14 450	11 440
Swan Hill	4.5	2.42	65.34	13 900	R	12 410	10 590
Wakool Junction	8.8	4.64	53.76	15 710	R	13 850	11 530
Euston Weir (d/s)	8.8	2.68	44.52	15 630	R	14 840	11 590
Mildura Weir (d/s)	-	-	-	13 020	F	12 760	-
Wentworth Weir (d/s)	7.3	3.43	28.19	15 980	R	14 130	9 130
Rufus Junction	-	3.34	20.27	5 560	R	4 970	3 880
Blanchetown (Lock 1 d/s)	-	0.73	-	6 290	R	5 910	4 430
Tributaries							
Kiewa at Bandiana	2.7	2.67	155.90	3 600	R	4 300	3 660
Ovens at Wangaratta	11.9	11.00	148.68	11 870	F	16 700	13 000
Goulburn at McCoys Bridge	9.0	5.18	96.60	9 070	F	7 340	3 720
Edward at Stevens Weir (d/s)	-	3.08	82.85	4 040	F	4 040	3 620
Edward at Liewah	-	2.71	58.09	2 180	R	1 790	880
Wakool at Stoney Crossing	-	1.85	55.35	1 740	R	1 430	920
Murrumbidgee at Balranald	5.0	2.60	58.56	2 210	S	2 640	2 000
Barwon at Mungindi	-	3.12	-	0	F	0	10
Darling at Bourke	-	4.01	-	70	S	70	120
Darling at Burtundy Rocks	-	0.74	-	140	S	120	130

Natural Inflow to Hume (i.e. Pre Dartmouth & Snowy Mountains scheme)	23 050	20 500
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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	-0.09	-	No. 7 Rufus River	22.10	+0.04	+1.03
No. 26 Torrumbarry	86.05	+0.00	-	No. 6 Murtho	19.25	+0.01	+0.06
No. 15 Euston	47.60	+0.30	-	No. 5 Renmark	16.30	+0.02	+0.17
No. 11 Mildura	34.40	-0.39	+0.59	No. 4 Bookpurnong	13.20	+0.01	+0.72
No. 10 Wentworth	30.80	+0.06	+0.79	No. 3 Overland Corner	9.80	+0.10	+0.23
No. 9 Kulnine	27.40	+0.06	-0.11	No. 2 Waikerie	6.10	+0.05	+0.26
No. 8 Wangumma	24.60	-0.22	+0.25	No. 1 Blanchetown	3.20	+0.04	-0.02

Lower Lakes FSL = 0.75 m AHD

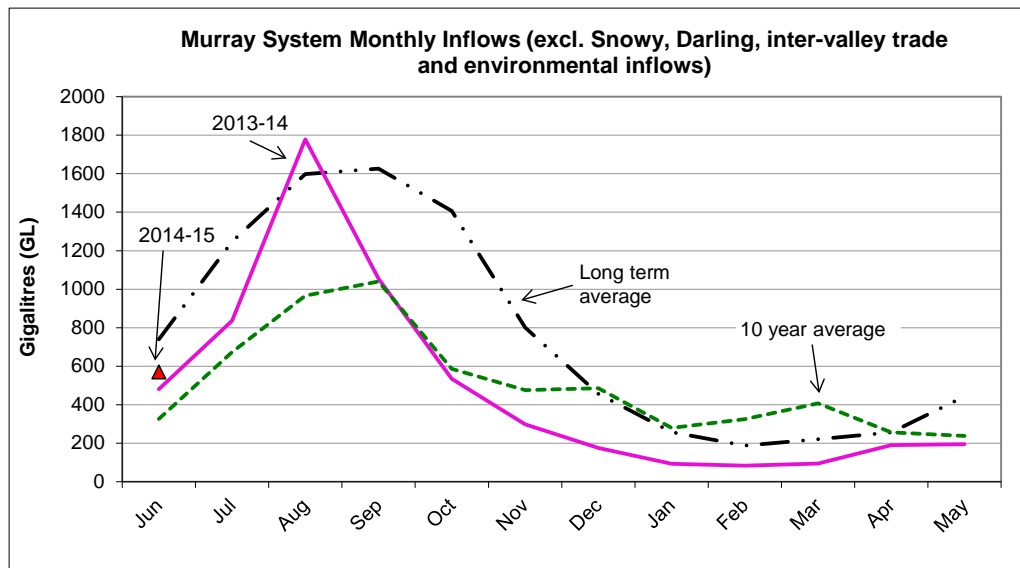
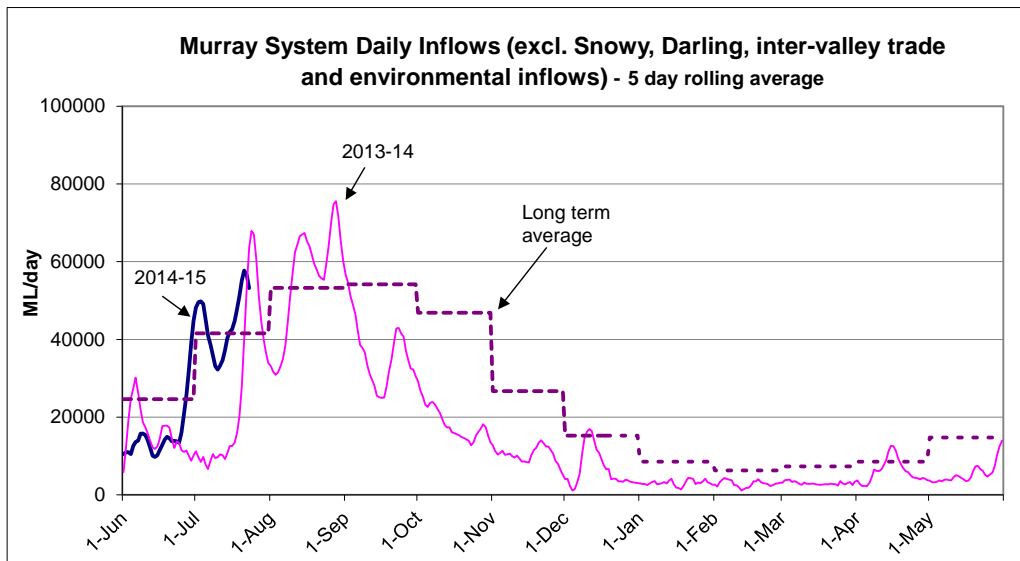
Lake Alexandrina average level for the past 5 days (m AHD)	0.75
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Barrages

Fishways at Barrages

	Openings	Level (m AHD)	No. Open	Rock Ramp	Vertical Slot
Goolwa	128 openings	0.86	9	-	Open
Mundoo	26 openings	0.84	All closed	-	-
Boundary Creek	6 openings	-	0.1	-	-
Ewe Island	111 gates	-	All closed	-	-
Tauwitchere	322 gates	0.85	12	Open	Open

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



State Allocations (as at 23 Jul 2014)

NSW - Murray Valley

High security	97%
General security	9%

Victorian - Murray Valley

High reliability	76%
Low reliability	0%

NSW - Murrumbidgee Valley

High security	95%
General security	17%

Victorian - Goulburn Valley

High reliability	90%
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.q-mwater.com.au/water-resources/allocations/current.asp>

SA : <http://www.environment.sa.gov.au/managing-natural-resources/river-murray>

Flow advice



17 JULY 2014

Raising of Euston Weir Pool

River Murray water users and landholders are advised that the Euston weir pool will be raised to 0.4 metres above its normal full supply level over coming weeks. This is 0.2 metres higher than the level reached on 2 July 2014. The effects will extend beyond the weir pool into the surrounding lakes and creeks, possibly as far as Lake Caringay.

Water users and landholders should make arrangements to respond to this water level increase.

Starting Friday 18 July, Euston weir pool will be gradually raised from its current level of 0.1 metres below full supply level (47.50 metres Australian Height Datum (AHD)) to about 0.4 metres above full supply level (48.0 metres AHD).

The pool will be held at this level before returning to full supply level (47.60 metres AHD) in August.

The pool is being temporarily filled to help manage the volume of downstream flow in the River Murray while works are taking place on the Lake Victoria outlet regulator.

The Murray–Darling Basin Authority will continue to monitor river levels and manage weir pools over the coming weeks. This operation has been made possible due to upgrade works completed in 2013, which now enable Euston weir pool to be operated at higher levels.

Mitigation of this flow pulse will have no material effect on state water shares for New South Wales and Victoria as the flow to South Australia is currently unregulated (in excess of entitlement plus any trades).

Further updates will be provided as required through the media and the MDBA's river operations weekly report, which can be found at www.mdba.gov.au/river-data/current-information-forecasts/weekly-report.

ENDS

Media enquiries can be directed to the MDBA Media Office at media@mdba.gov.au or 02 6279 0141.

Public enquiries can be directed to engagement@mdba.gov.au or 02 6279 0100.

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MEDIA RELEASE



18 July 2014

Mildura weir draw down starts

The community and river users around Mildura are reminded that the Mildura weir pool draw down will start on Monday, 21 July, as a four-week maintenance program continues.

During this time the weir, grounds and Lock Island will be shut and signposted with "no access".

Lock 11 has been closed since last Tuesday to allow materials to be brought in.

MDBA head of River Management David Dreverman said the Mildura weir pool would start to be drawn down over the coming week and would likely remain low until mid-August.

"As part of the works program, we'll be removing the weir's trestles. This will drop the weir pool level to about 3.0 metres below the full level, depending on river flows," Mr Dreverman said.

"We've scheduled the closure to start before the irrigation season begins, and based on local tourism, industry and irrigation advice. This is designed to cause the least disruption to river users.

"This work is a necessary part of managing the river properly and reliably to support surrounding industries. We appreciate everyone's understanding while we complete the upgrade."

The works involve installing mechanised gates and repairing the support structure on the riverbed.

Mr Dreverman expected the final phase of the infrastructure program would be completed over two to three months next winter.

Further updates will be provided as required through the media and the MDBA's river operations weekly report, which can be found 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, or Goulburn–Murray Water on 1800 013 357.

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