RIVER MURRAY WEEKLY REPORT

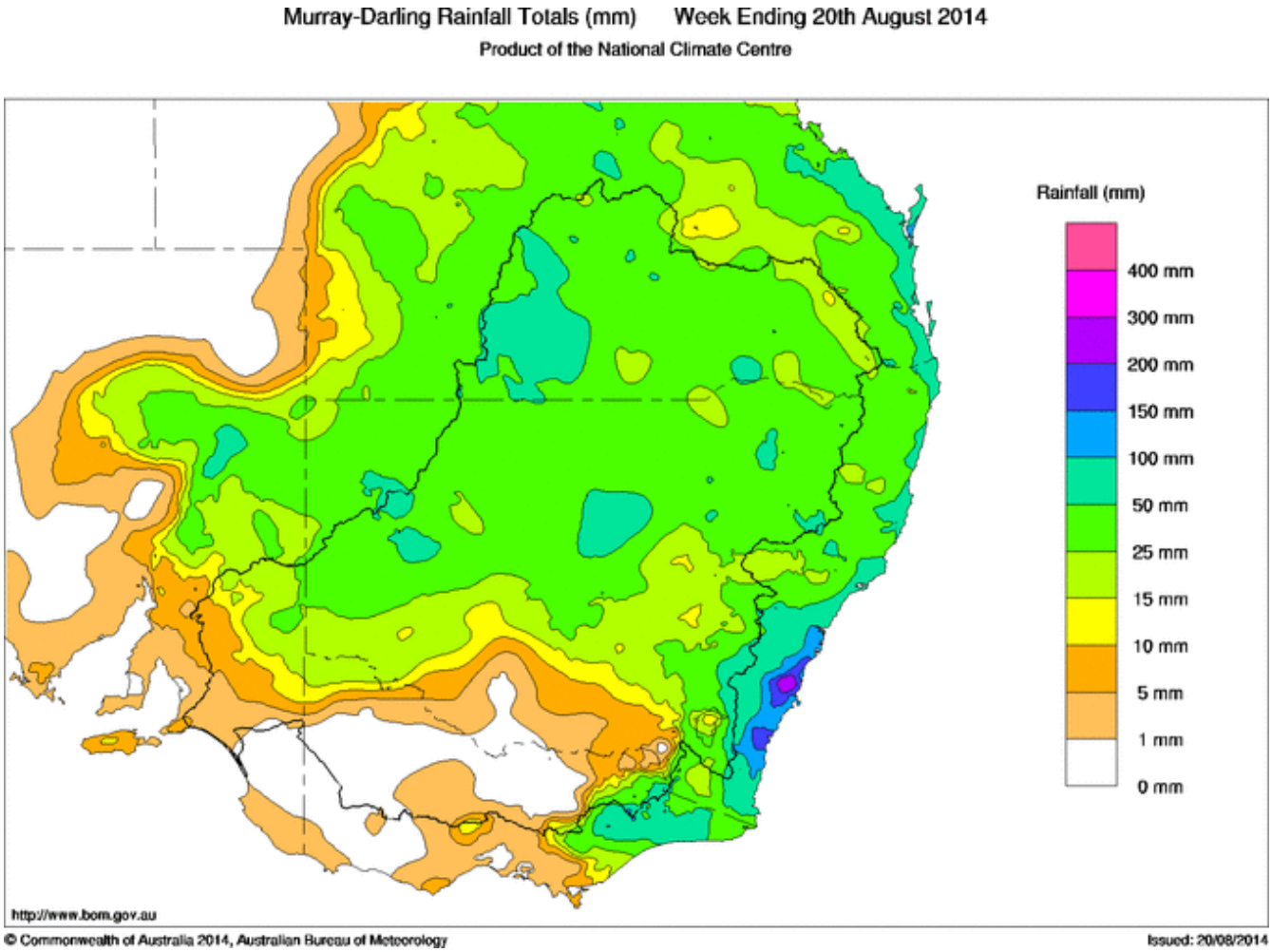
FOR THE WEEK ENDING WEDNESDAY, 20 AUGUST 2014

Trim Ref: D14/31648

Rainfall and Inflows

A broad trough system moved slowly from the north-west to the south-east of the Murray-Darling Basin this week bringing widespread rain across a large part of the region. The rain was particularly welcomed by drought-affected communities across southern Queensland and central and northern NSW where there were wide-ranging and unseasonably heavy totals between 25 and 75 mm. The rain was lighter in the southern Basin, with little or no rain recorded across western Victoria and the major irrigation districts of northern Victoria and southern NSW (Map 1).

The highest rainfall totals were recorded across Queensland's Warrego River catchment, central and western NSW and the upper Lachlan and Murrumbidgee River catchments in the south-east. Notable totals in Queensland included 72 mm at Wallen, 67 mm at Charleville, 64 mm at Traighli and 60 mm at Cunnamulla. In NSW there was 74 mm at Crookwell, 73 mm at Nyngan, 64 mm at Captains Flat, 57 mm at Pallamallawa and 55 mm at Quambone; while in Victoria, rain over the upper Mitta Mitta River catchment brought 45 mm to Omeo.



Map 1- Murray-Darling Basin rainfall for the week ending 20 August 2014 (Source: Bureau of Meteorology)

Flow responses were varied across the upper Murray tributaries this week. There was reasonable rainfall across the upper Mitta Mitta and Murray catchments leading to modest streamflow rises; while flows in the Ovens River continued to recede under relatively drier skies. On the upper Mitta Mitta River,

the flow at Hinnomunjie Bridge increased from 900 ML/day to a peak of 2,200 ML/day. On the upper Murray, the flow at Biggara increased from 1,100 to 1,700 ML/day. On the Ovens River, the flow at Wangaratta receded from 5,400 to 3,800 ML/day.

River Operations

- Hume releases increase in response to the beginning of the irrigation season
- Low river levels are forecast for the mid-Murray next week

At **Dartmouth** Reservoir, the storage volume decreased by 1 GL this week to 3,641 GL (94% capacity). This decrease was a result of modest inflows and increased releases at Colemans. The average minimum release required from Dartmouth Reservoir varies between 200 and 500 ML/day depending on storage levels. Release has been averaging 200 ML/day since 1 July 2014, however at the beginning of the week, release was increased to 3,000 ML/day for three days to meet water quality and environmental objectives in the Mitta Mitta River. This variation to the flow has resulted in the release now averaging around 400 ML/day since 1 July 2014. As releases were receding, AGL Hydro ordered water for electricity generation which has seen Colemans rise from 1,200 ML/day to 3,000 ML/day. Releases are expected to reduce over the coming week.

At the beginning of the week **Hume** Dam releases were at the minimum of 600 ML/day to conserve water in upper Murray storage. Release was increased on Sunday from the minimum – for the first time since 5 June 2014 – to 6,000 ML/day. The decision to increase the release was brought about by the recession of flows on the Kiewa and Ovens Rivers and the beginning of the irrigation season. Over much of winter, the **Kiewa** and **Ovens** Rivers have been meeting and exceeding downstream demands. Now that these rivers have receded they can supply only part of the downstream demands.

Demands increased steadily this week as the irrigation season at major irrigation areas commenced. At **Lake Mulwala** diversions to Mulwala Canal and Yarrawonga Main Channel increased to 3,000 ML/day and 1,500 ML/day respectively and are expected to rise further next week.

River levels in the mid-Murray are generally receding and low levels might be expected in coming weeks as there is currently no requirement to transfer water from Hume Reservoir to Lake Victoria. River users are advised to plan their activities to the prevailing water levels and to check regularly for updates at http://www.mdba.gov.au/river-data/current-information-forecasts. State Water has issued a customer notice regarding low flows on the River Murray which is attached.

This week, as tributary flows have receded, **Yarrawonga** releases have been gradually reduced to 4,500 ML/day to match downstream demand. At this flow rate the **Edward** and **Gulpa** off takes are diverting around 800 and 300 ML/day respectively, with the gates fully open. The **Goulburn** River has remained relatively steady this week, averaging around 3,000 ML/day.

Diversions to **National Channel** have increased from 1,800 ML/day to 2,500 ML/day and diversions of 500 ML/day have continued at the Koondrook-Perricoota inlet regulator.

The flow at **Torrumbarry** Weir is receding and is forecast to be under 3,000 ML/day next week. Flows from **Gunbower** forest are entering the Murray at Chinamens bend and contributing about 400 ML/day. The flow at **Swan Hill** will be lower in a week, possibly under 4,000 ML/day, if conditions remain dry.

Flows in the lower reaches of the Murray are higher as the peak which passed Euston two weeks ago, recedes away. Flows at **Mildura, Wentworth** and the **South Australia** border are all receding and will continue to do so without further rainfall. Unregulated flow periods continued this week from the Murrumbidgee Junction to South Australia and can be expected to soon cease when flows to South Australia reduce to entitlement flows only.

On the lower **Darling** River high salinity levels are persisting with levels of 1,000 EC forecast for Burtundy this week.

Lake Victoria is around 95% storage capacity and has risen 33 GL this week. The lake will be filled to maximise the storage of unregulated flows, however filling will take place as late as is possible – most likely early in September - to support stabilisation of the lake foreshore for cultural heritage sites.

At the **Lower Lakes**, the five-day average water level at Lake Alexandrina is 0.79 m AHD and the total barrage release is over 17,000 ML/day. The lake level will continue to fall as part of the 'cycling' process to improve salinity levels in Lake Albert.

For media inquiries contact the Media Officer on 02 6279 0141

DAVID DREVERMAN
Executive Director, River Management

Water in Storage

Week ending Wednesday 20 Aug 2014

MDBA Storages	Full Supply Level (m AHD)	Full Supply Volume (GL)	Current Storage Level (m AHD)	Current Storage (GL)	Current Storage %	Dead Storage (GL)	Active Storage (GL)	Change in Total Storage for the Week (GL)
Dartmouth Reservoir	486.00	3 856	482.66	3 641	94%	71	3 570	-1
Hume Reservoir	192.00	3 005	188.00	2 263	75%	23	2 240	+57
Lake Victoria	27.00	677	26.68	638	94%	100	538	+33
Menindee Lakes		1 731*		365	21%	(- -) #	0	+8
Total		**9 269**		**6 907**	**75%**	**- -**	**6 348**	**+97**
Total Active MDBA Storage							75% ^	

Major State Storages

Burrinjuck Reservoir	1 026		776	76%	3	773	+14
Blowering Reservoir	1 631		1 163	71%	24	1 139	+8
Eildon Reservoir	3 334		2 863	86%	100	2 763	+28

* 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 19 Aug 2014

Storage	Active Storage (GL)	Weekly Change (GL)	Diversion (GL)	This Week	From 1 May 2014
Lake Eucumbene - Total	1 823	n/a	Snowy-Murray	+10	182
Snowy-Murray Component	842	n/a	Tooma-Tumut	+7	117
Target Storage	1 190		Net Diversion	3	65
			Murray 1 Release	+17	284

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)	17.7	49	Yarrawonga Main Channel (net)	4.6	6
Wakool Sys Allowance	0.0	2	Torrumbarry System + Nyah (net)	15.7	72
Western Murray Irrigation	0.1	1	Sunraysia Pumped Districts	0.4	3
Licensed Pumps	2.0	7	Licensed pumps - GMW (Nyah+u/s)	0.3	0
Lower Darling	0.2	1	Licensed pumps - LMW	1.2	7
TOTAL	**20.0**	**60**	**TOTAL**	**22.2**	**88**

* 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 unregulated flows and the delivery of additional environmental water.

Entitlement this month	124.0 *
Flow this week	110.0
Flow so far this month	323.7
Flow last month	214.5

(15 700 ML/day)

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

	Current	Average over the last week	Average since 1 August 2014
Swan Hill	110	100	100
Euston	110	100	110
Red Cliffs	100	100	110
Merbein	100	110	120
Burtundy (Darling)	-	-	810
Lock 9	120	120	140
Lake Victoria	220	200	220
Berri	200	210	240
Waikerie	230	300	340
Morgan	260	310	330
Mannum	330	360	430
Murray Bridge	430	470	510
Milang (Lake Alex.)	750	730	730
Poltalloch (Lake Alex.)	610	670	650
Meningie (Lake Alb.)	2 280	2 250	2 200
Goolwa Barrages	720	770	2 200

River Levels and Flows

Week ending Wednesday 20 Aug 2014

River Murray	Minor Flood Stage (m)	Gauge Height local (m)	Gauge Height (m AHD)	Flow (ML/day)	Trend	Average Flow this Week (ML/day)	Average Flow last Week (ML/day)
Khancoban	-	-	-	2 590	F	3 190	3 530
Jingellic	4.0	1.95	208.47	6 200	R	6 460	7 300
Tallandoon (Mitta Mitta River)	4.2	2.31	219.20	3 480	R	2 800	1 460
Heywoods	5.5	2.18	155.81	5 990	R	2 190	600
Doctors Point	5.5	2.38	150.85	7 760	R	4 210	3 030
Albury	4.3	1.37	148.81	-	-	-	-
Corowa	3.8	1.37	127.39	4 870	R	3 380	3 900
Yarrawonga Weir (d/s)	6.4	0.90	115.94	4 530	S	4 940	9 550
Tocumwal	6.4	1.53	105.37	5 010	F	5 920	10 020
Torrumbarry Weir (d/s)	7.3	2.13	80.68	6 090	F	8 400	14 030
Swan Hill	4.5	1.68	64.60	9 040	F	11 400	15 820
Wakool Junction	8.8	4.30	53.42	13 880	F	16 800	20 450
Euston Weir (d/s)	8.8	2.94	44.78	17 870	F	20 260	23 510
Mildura Weir (d/s)		-	-	-	-	-	-
Wentworth Weir (d/s)	7.3	3.84	28.60	18 890	F	20 490	21 370
Rufus Junction	-	4.47	21.40	13 270	F	14 820	16 060
Blanchetown (Lock 1 d/s)	-	1.27	-	16 720	F	16 480	16 270
Tributaries							
Kiewa at Bandiana	2.7	1.97	155.20	2 020	R	2 020	2 490
Ovens at Wangaratta	11.9	9.17	146.85	3 840	F	4 250	6 320
Goulburn at McCoys Bridge	9.0	2.45	93.87	2 770	F	3 100	5 070
Edward at Stevens Weir (d/s)	-	1.47	81.24	1 280	F	2 210	2 120
Edward at Liewah	-	-	-	1 580	F	2 000	2 570
Wakool at Stoney Crossing	-	1.77	55.26	1 400	R	1 740	2 710
Murrumbidgee at Balranald	5.0	1.88	57.84	1 430	F	1 570	2 420
Barwon at Mungindi	-	3.11	-	-	-	-	-
Darling at Bourke	-	3.99	-	50	S	50	30
Darling at Burtundy Rocks	-	0.74	-	140	S	130	120

Natural Inflow to Hume	7 750	11 250

(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
Yarrawonga	124.90	-0.17	-	No. 7 Rufus River	22.10	-0.01	+2.17
No. 26 Torrumbarry	86.05	+0.00	-	No. 6 Murtho	19.25	-0.02	+0.64
No. 15 Euston	47.60	+0.18	-	No. 5 Renmark	16.30	+0.03	+0.64
No. 11 Mildura	34.40	+0.06	+0.89	No. 4 Bookpurnong	13.20	+0.01	+1.52
No. 10 Wentworth	30.80	-0.02	+1.20	No. 3 Overland Corner	9.80	+0.01	+1.02
No. 9 Kulnine	27.40	+0.15	+0.67	No. 2 Waikerie	6.10	+0.30	+1.12
No. 8 Wangumma	24.60	+0.40	+0.72	No. 1 Blanchetown	3.20	+0.32	+0.52

Lower Lakes FSL = 0.75 m AHD

Lake Alexandrina average level for the past 5 days (m AHD)	0.79

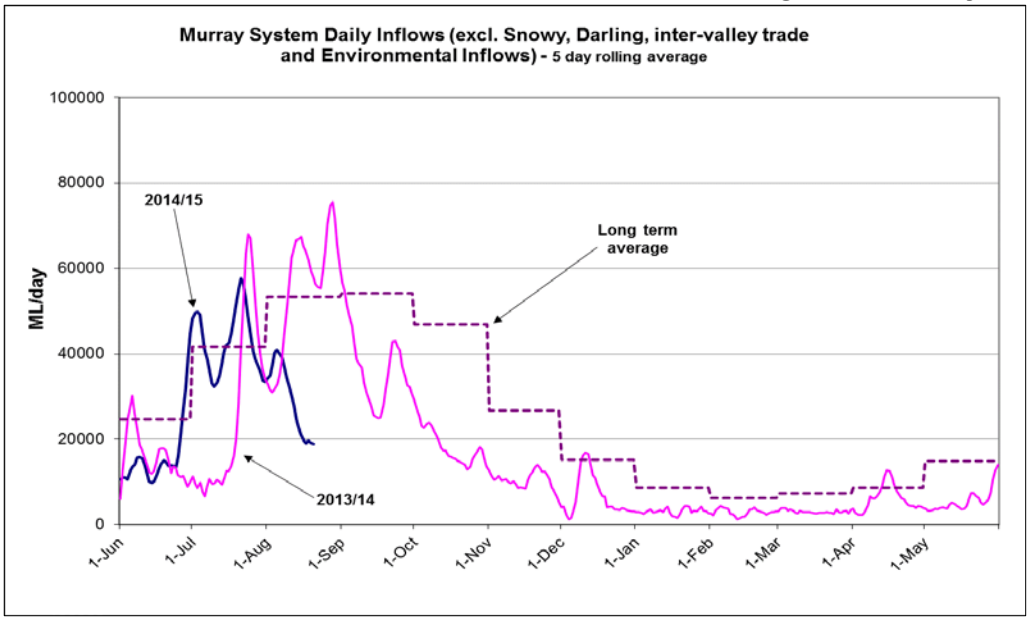
Barrages

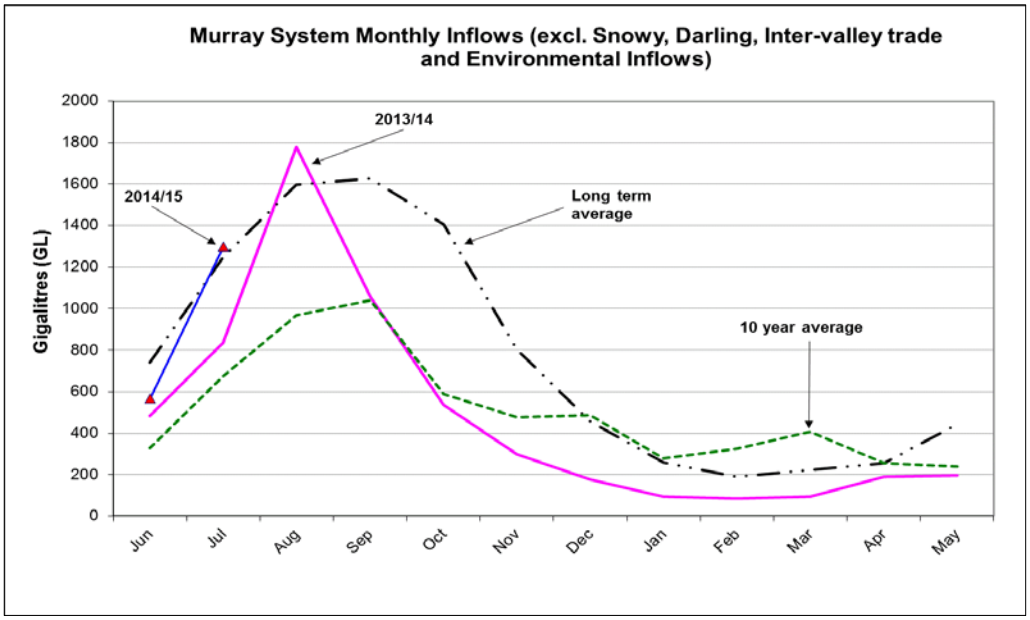
Fishways at Barrages

	Openings	Level (m AHD)	No. Open	Rock Ramp	Vertical Slot
Goolwa	128 openings	0.75	44	-	Open
Mundoo	26 openings	0.75	2	-	-
Boundary Creek	6 openings	-	0.1	-	-
Ewe Island	111 gates	-	5	-	-
Tauwitchere	322 gates	0.78	35	Open	Open

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

Week ending Wednesday 20 Aug 2014





State Allocations (as at 20 Aug 2014)

NSW - Murray Valley

High security	97%
General security	17%

Victorian - Murray Valley

High reliability	90%
Low reliability	0%

NSW – Murrumbidgee Valley

High security	95%
General security	26%

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%

NSW : http://www.water.nsw.gov.au/Water-management/Water-availability/Water-allocations/Water-allocations-summary/water-allocations-summary/default.aspx
VIC : http://www.g-mwater.com.au/water-resources/allocations/current.asp
SA : http://www.environment.sa.gov.au/managing-natural-resources/river-murray

RIVER MURRAY FORECAST FOR LOW FLOWS

21 August 2014

Due to extended drying weather conditions and reduced inflows from tributary streams downstream of the major storage dams, river levels are falling across the system downstream of Yarrawonga Weir, including the Gulpa Creek and Edward River.

Low Murray River level in some areas, such as Bullatale Creek, are already impacting on the ability to meet irrigation demands. In the coming week, the river downstream of Torrumbarry is expected to continue falling and is likely to cause supply issues within the Merran Creek system.

Release of additional water from storages at this point in time is likely to be surplus to requirement and result in a loss of both NSW and Victorian resources. With a dry outlook, for the coming months, preservation of available resources is a priority.

The changes to river flows are necessary to ensure the river is operated efficiently to maximise water resources for future consumptive demands. The lower end of the Murray River system continues to have surplus volume available, and Lake Victoria is currently at 95% capacity and is forecast to reach 100% in coming weeks.

Low river levels may persist while conditions remain dry and demand remains relatively low. State Water is advising customers to keep watch on river levels and consider adjusting their activities as a result of the changes to water levels.

Customer are reminded that a complying water order is to be lodged with State Water prior to extraction as this will assist State Water with forecast demand within the system downstream of Yarrawonga Weir, including the Gulpa Creek and Edward River.

Authorised by:

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