



RIVER MURRAY WEEKLY REPORT

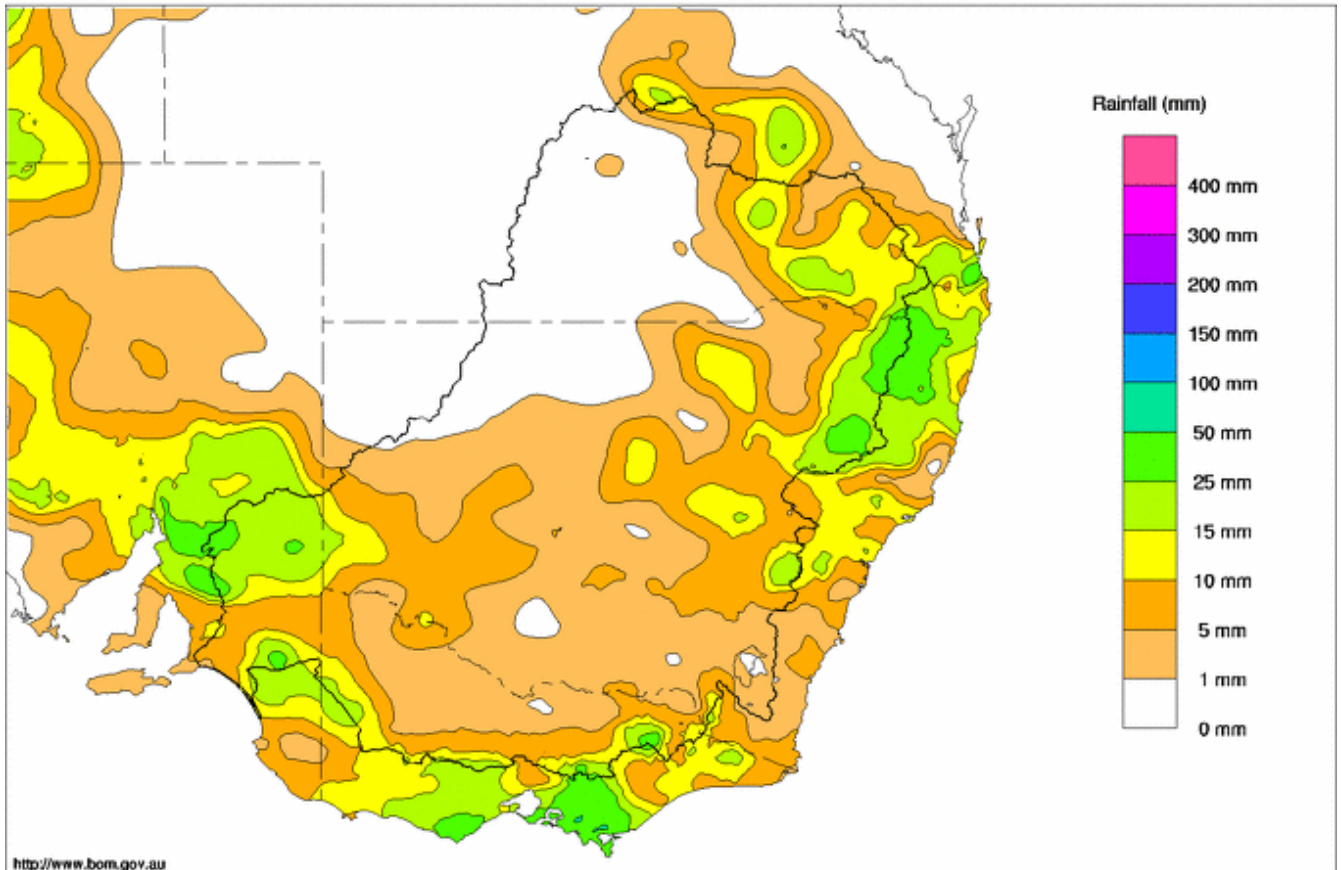
FOR THE WEEK ENDING WEDNESDAY, 05 DECEMBER 2012

Trim Ref: D12/50330

Rainfall and Inflows

An extreme range of weather conditions affected the Murray-Darling Basin this week with widespread heat contrasting with a cold outbreak and snowfalls over the south-eastern alpine areas late in the week. Patchy showers and storms affected many regions but these generally resulted in only modest rainfall totals (Map 1). The highest rain totals were recorded over north-eastern NSW including 72 mm at Glen Innes Airport, 43 mm on the Queensland border at Wallangarra, 39 mm at Guyra and 37 mm at Tamworth. In the south-east, there were moderate totals in the Victorian ranges including 39 mm at Mt Buffalo, 34 mm at Woods Point, 27 mm at Gibbo Park and 23 mm at Falls Creek.

Murray-Darling Rainfall Totals (mm) Week Ending 5th December 2012
Product of the National Climate Centre



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

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Issued: 05/12/2012

Map 1 - Murray-Darling Basin rainfall for the week ending 5 December 2012 (Source: Bureau of Meteorology)

Tributaries in the upper Murray catchment have mostly receded from one week ago. On the Mitta Mitta River, the flow at Hinnomunjie Bridge decreased from 550 to 400 ML/day. On the upper Murray, the flow at Biggara decreased from 1,200 to around 1,000 ML/day, while downstream at Jingellic the average flow was slightly higher than the previous week but was boosted by higher releases from Snowy Hydro. On the Ovens River, flows have receded to their lowest levels for several months. At Wangaratta, the Ovens is now flowing at just under 1,000 ML/day.



November 2012 Summary

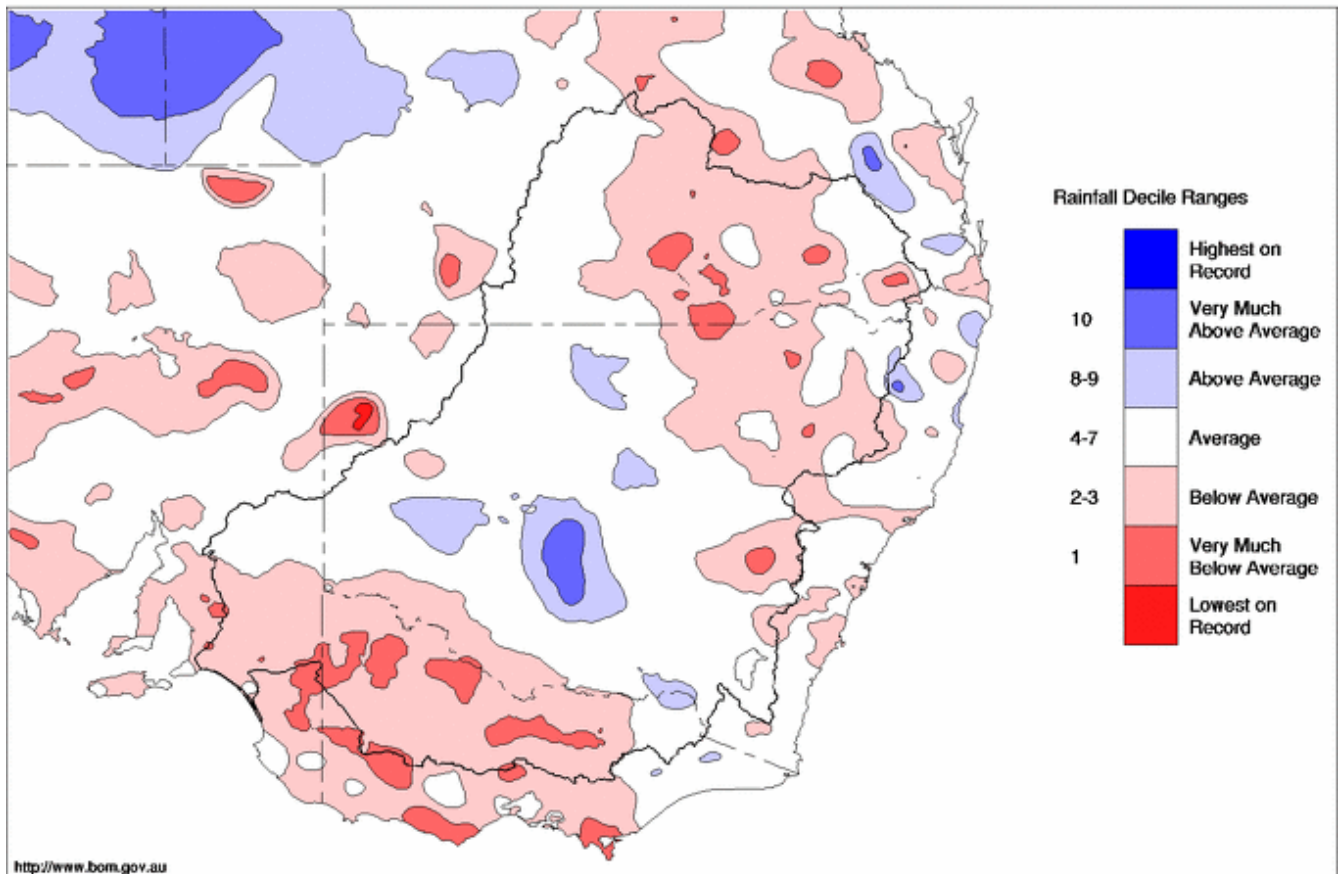
Rainfall during November over the Murray-Darling Basin was generally average to below average (Map 2). However, around Griffith, in the Riverina, rainfall was more than 25 mm above average for the month, with a small area receiving totals of more than 50 mm higher than average. In most of northern Victoria, and large areas of northern NSW and southern Queensland, rainfall was 10–50 mm below average.

The recent trend of above average maximum temperatures continued during November. In most parts of the Basin, the maximum temperatures were 2–4 degrees Celsius above the long-term monthly mean. Minimum temperatures were also slightly higher, being 0–2 degrees above average.

The inflow to the River Murray system (excluding the Darling River and Snowy inflows) during November was about 600 GL. This inflow is lower than the long-term average of about 800 GL but higher than the average for the last 10 years of 480 GL.

Murray-Darling Rainfall Deciles November 2012

Distribution Based on Gridded Data
Product of the National Climate Centre



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

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Issued: 03/12/2012

Map 2 - Murray-Darling Basin rainfall deciles for November 2012 (Source: Bureau of Meteorology)

River Operations

MDBA active storage decreased by 194 GL this week and is currently 8,134 GL, or 95% capacity. At Dartmouth Reservoir, the storage volume increased by just 1 GL to 3,817 GL (99% capacity). The release, measured at Colemans, has remained at around 350 ML/day throughout the week, however a 'pulsed' release peaking briefly up to 2,350 ML/day remains scheduled to commence on 6 December 2012. This release aims to manage downstream water quality in the Mitta Mitta River. There will be a



reduction to the release on 12-13 December to the normal minimum of 200 ML/day. See the attached flow advice for more details.

At Hume Reservoir, the storage volume reduced by 67 GL to 2,734 GL (91% capacity). The release has remained relatively steady this week and is currently 14,100 ML/day.

At Yarrawonga Weir, total diversions at the irrigation offtakes have remained between 8,000 and 9,000 ML/day throughout the week. The pool level in Lake Mulwala is 124.67 m AHD or 23 cm below Full Supply Level. The downstream release is currently 8,500 ML/day and is expected to average around 8,000 ML/day during the coming days.

The summer period is a popular time for recreational activities on Lake Mulwala. Water users this summer will find very low levels of the waterweed *Egeria densa*, meaning much improved conditions compared with some recent summers. The reduction in this weed follows the recent weed management approach of lowering the lake level during winter to expose the weed to frost. See the attached information sheet for more details.

On the Edward River system, flow through the Edward and Gulpa offtakes has been fairly steady, with the current flows being 1,560 ML/day through the Edward River offtake and 500 ML/day through the Gulpa Creek offtake. Inflow through the Edward Escape has increased slightly this week, with flow downstream of Stevens Weir increasing from 600 to 1,200 ML/day.

On the Goulburn River at McCoys Bridge, flows have receded with the current flow now at 3,300 ML/day. The flow is expected to continue falling during the coming days. At Torrumbarry Weir, the diversion at National Channel remains at around 2,200 ML/day. Downstream of Torrumbarry Weir, the flow reached a peak of 9,500 ML/day on 29 November, but has since receded to around 8,600 ML/day.

On the lower Murrumbidgee River, the flow at Balranald has fallen back to 3,400 ML/day and will decrease to around 3,000 ML/day in the coming days. Downstream on the Murray at Euston the flow has increased steadily this week as expected. The current flow is 13,200 ML/day and close to a peak.

In the Sunraysia district, the Sunraysia Regional Algal Coordinating Committee has issued a precautionary warning for blue-green algae between Red Cliffs and Mildura Weir. Blue-green algae poses a health risk, and water users are advised to be cautious when entering the river or when using extracted water. In addition, with further hot weather expected over the coming weeks, algal counts could increase rapidly to high levels. See the attached algal alert bulletin for more details.



Figure 1 – A paddle boat takes advantage of high river levels on the Darling at Weir 32. Photo: Barry Philp, NSW State Water.



Total storage at Menindee Lakes decreased by 103 GL this week to 1,638 GL (95% capacity). The release (measured at Weir 32) has remained close to 9,000 ML/day throughout the week (Figure 1). A reduction in release planned to commence on 9 December, will decrease the flow at Weir 32 to 7,000 ML/day by mid December. See the attached flow advice for more details. Downstream on the lower Darling River, the flow at Burtundy continues to rise steadily. The current flow is 6,900 ML/day and should increase towards 8,000 ML/day this week.

At Lake Victoria the volume reduced by 22 GL to 619 GL (91% capacity) and is expected to continue decreasing this week. The flow to South Australia has increased to an average of 17,700 ML/day and should average between 18,000 and 19,000 ML/day in the coming week. About 9,000 ML/day of this flow is additional environmental water. It is expected that over 600 GL of environmental water held by Commonwealth and State governments will be delivered to South Australia between October 2012 and February 2013. The large scale of this environmental flow event has been achieved by co-ordinating releases from the upper Murray, Campaspe, Goulburn, Murrumbidgee and Darling Rivers.

The flow at Lock 1 increased from 11,500 to 14,200 ML/day and at the Lower Lakes, the level has remained fairly steady. The 5 day average for Lake Alexandrina remains at 0.78 m AHD.

For media inquiries contact the Media Officer on 02 6279 0141

DAVID DREVERMAN
Executive Director, River Management



Water in Storage

Week ending Wednesday 05 Dec 2012

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	485.41	3 817	99%	71	3 746	+1
Hume Reservoir	192.00	3 005	190.61	2 734	91%	23	2 711	-70
Lake Victoria	27.00	677	26.52	619	91%	100	519	-22
Menindee Lakes		1 731*		1 638	95%	(480 #)	1 158	-103
Total		9 269		8 808	95%	--	8 134	-194
Total Active MDBA Storage							95% ^	

Major State Storages

Burrinjuck Reservoir	1 026	749	73%	3	746	-31
Blowering Reservoir	1 631	1 502	92%	24	1 478	+5
Eildon Reservoir	3 334	3 171	95%	100	3 071	-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 04 Dec 2012

Storage	Active Storage (GL)	Weekly Change (GL)	Diversions (GL)	This Week	From 1 May 2012
Lake Eucumbene - Total	2389	-32	Snowy-Murray	+14	495
Snowy-Murray Component	967	-7	Tooma-Tumut	+6	194
Target Storage	1510		Net Diversion	8	301
			Murray 1 Release	+14	736

Major Diversions from Murray and Lower Darling (GL) *

New South Wales	This Week	From 1 July 2012	Victoria	This Week	From 1 July 2012
Murray Irrig. Ltd (Net)	45.6	611	Yarrowonga Main Channel (net)	11.5	138
Wakool Sys Allowance	2.7	9	Torrumbarry System + Nyah (net)	14.1	247
Western Murray Irrigation	0.9	9	Sunraysia Pumped Districts	4.1	44
Licensed Pumps	5.6	96	Licensed pumps - GMW (Nyah+u/s)	1.9	12
Lower Darling	4.2	33	Licensed pumps - LMW	7.5	103
TOTAL	59.0	758	TOTAL	39.1	544

* 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 entitlement for this month due to Unregulated Flows and Additional Dilution Flow.

Entitlement this month	217.0 *	
Flow this week	124.1	(17 700 ML/day)
Flow so far this month	93.8	
Flow last month	491.4	

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

	Current	Average over the last week	Average since 1 August 2012
Swan Hill	100	110	120
Euston	140	130	120
Red Cliffs	140	150	120
Merbein	120	120	140
Burtundy (Darling)	480	470	430
Lock 9	270	250	150
Lake Victoria	280	250	240
Berri	320	310	220
Waikerie	300	300	250
Morgan	310	310	240
Mannum	290	290	240
Murray Bridge	320	320	270
Milang (Lake Alex.)	400	380	380
Poltalloch (Lake Alex.)	360	340	270
Meningie (Lake Alb.)	3 440	3 430	3 440
Goolwa Barrages	700	550	1 800



River Levels and Flows

Week ending Wednesday 05 Dec 2012

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	-	-	-	1 050	F	3 480	1 510
Jingellic	4.0	1.41	207.93	2 940	F	5 020	3 950
Tallandoon (Mitta Mitta River)	4.2	1.56	218.45	800	R	780	900
Heywoods	5.5	3.02	156.65	14 120	R	13 810	13 630
Doctors Point	5.5	3.11	151.58	16 000	R	15 690	15 370
Albury	4.3	2.10	149.54	-	-	-	-
Corowa	3.8	3.30	129.32	16 110	R	15 940	15 760
Yarrowonga Weir (d/s)	6.4	1.45	116.49	8 480	F	8 670	8 670
Tocumwal	6.4	2.18	106.02	8 960	S	8 660	8 880
Torrumbarry Weir (d/s)	7.3	2.82	81.37	8 570	F	9 190	8 500
Swan Hill	4.5	1.75	64.67	9 090	S	9 060	6 610
Wakool Junction	8.8	3.79	52.91	11 090	S	10 660	8 680
Euston Weir (d/s)	8.8	2.36	44.20	13 210	R	12 720	11 860
Mildura Weir (d/s)	-	-	-	12 470	F	11 140	11 440
Wentworth Weir (d/s)	7.3	3.77	28.53	18 980	R	15 930	12 810
Rufus Junction	-	5.03	21.96	17 920	F	16 800	13 320
Blanchetown (Lock 1 d/s)	-	1.34	-	14 190	R	13 960	11 370
Tributaries							
Kiewa at Bandiana	2.7	1.35	154.58	1 060	F	1 350	1 290
Ovens at Wangaratta	11.9	8.12	145.80	1 000	F	1 050	1 130
Goulburn at McCoys Bridge	9.0	2.82	94.24	3 310	F	4 720	5 400
Edward at Stevens Weir (d/s)	-	1.41	81.19	1 200	S	980	710
Edward at Liewah	-	1.84	57.22	1 170	F	1 270	1 410
Wakool at Stoney Crossing	-	1.57	55.06	790	F	850	1 070
Murrumbidgee at Balranald	5.0	3.27	59.23	3 400	F	3 950	5 350
Barwon at Mungindi	-	3.01	-	0	F	0	40
Darling at Bourke	-	4.17	-	690	R	730	670
Darling at Burtundy Rocks	-	4.01	-	6 920	R	6 100	3 250

Natural Inflow to Hume (i.e. Pre Dartmouth & Snowy Mountains scheme)	3710	6 250
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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	-0.23	-	No. 7 Rufus River	22.10	+0.19	+2.74
No. 26 Torrumbarry	86.05	+0.01	-	No. 6 Murtho	19.25	+0.01	+0.94
No. 15 Euston	47.60	+0.03	-	No. 5 Renmark	16.30	+0.02	+0.87
No. 11 Mildura	34.40	+0.02	+0.41	No. 4 Bookpurnong	13.20	+0.03	+1.73
No. 10 Wentworth	30.80	+0.04	+1.13	No. 3 Overland Corner	9.80	-0.03	+0.90
No. 9 Kulnine	27.40	+0.03	+0.65	No. 2 Waikerie	6.10	-0.01	+0.90
No. 8 Wangumma	24.60	+0.02	+1.04	No. 1 Blanchetown	3.20	-0.01	+0.59

Lower Lakes FSL = 0.75 m AHD

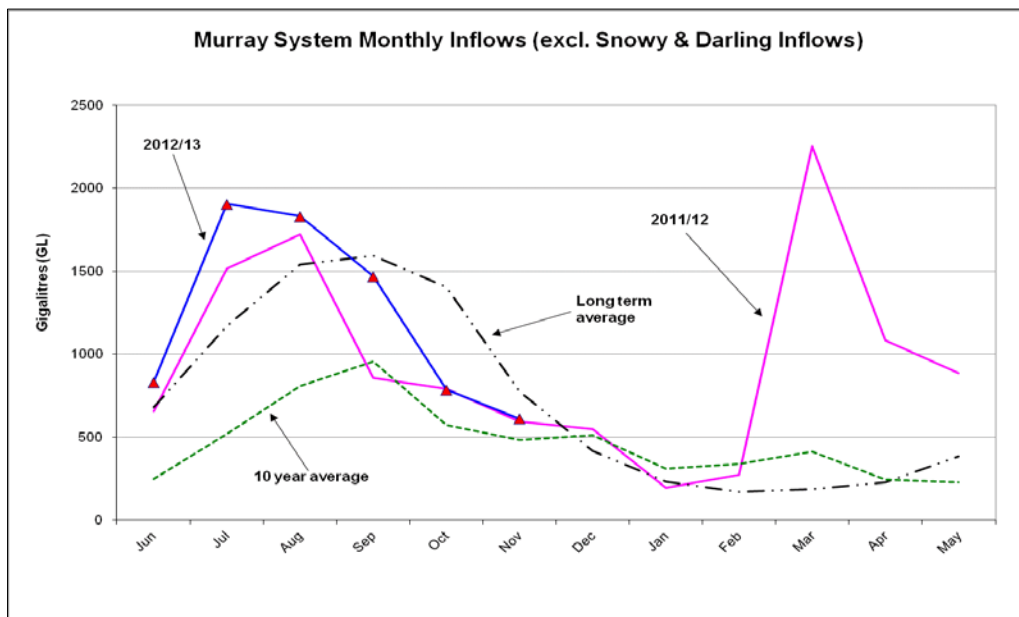
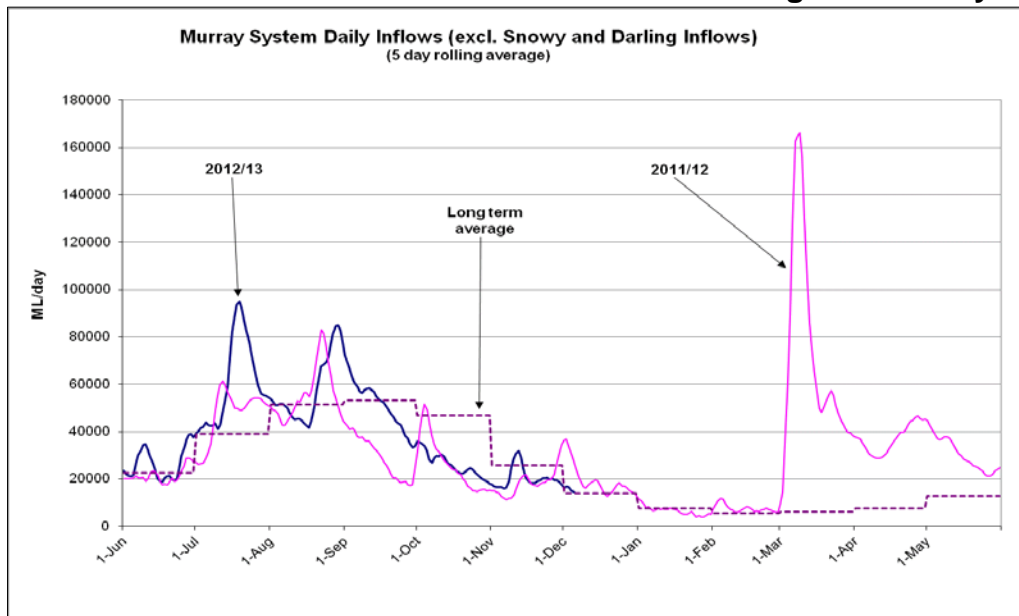
Lake Alexandrina average level for the past 5 days (m AHD)	0.78
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Barrages

Fishways at Barrages

	Openings	Level (m AHD)	No. Open	Rock Ramp	Vertical Slot
Goolwa	128 openings	0.62	All closed	-	Open
Mundoo	26 openings	0.57	All closed	-	-
Boundary Creek	6 openings	-	1	-	-
Ewe Island	111 gates	-	All closed	-	-
Tauwichee	322 gates	0.61	20	Open	Open

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



State Allocations (as at 05 Dec 2012)

NSW - Murray Valley

High security	100%
General security	100%

Victorian - Murray Valley

High reliability	100%
Low reliability	0%

NSW - Murrumbidgee Valley

High security	100%
General security	100%

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/About-us/Media-releases/media/default.aspx>
 VIC : <http://www.g-mwater.com.au/water-resources/allocations/current.asp>
 SA : <http://www.waterforgood.sa.gov.au/category/news/>

Lower Darling River Flow advice



4 December 2012

Release from Menindee Lakes to decrease on 9 December

The Murray-Darling Basin Authority advises that from 9 December–13 December 2012 the release from Menindee Lakes to the lower Darling River will decrease from 9,000 ML/day (local gauge height 3.3 m) to 7,000 ML/day (local gauge height 2.7 m).

It is currently planned to target an average flow of about 7,000 ML/day until early January 2013 with water levels varying between 2.65–2.75 m at Weir 32, depending on weather conditions and operational requirements.

At Burtundy, the flow is currently about 7,000 ML/day (4.0 m). The flow is expected to continue rising for the next couple of days then remain steady at about 7,500 ML/day (4.25 m) until mid December. A flow of between 5,500–6,100 ML/day (3.4–3.7 m) is expected from Christmas until after the New Year.

Landholders and river users, including pumpers, should take into account the changing flow rates along the lower Darling River and make necessary adjustments to their activities.

MDBA will provide regular updates in the River Operations Weekly Report http://www.mdba.gov.au/water/river_info/weekly_reports as release patterns vary over the coming months.

Forecast flows are also available on the MDBA website (see http://www.mdba.gov.au/water/river_info and click on 'storage volumes & releases' for Menindee storage volume and Weir 32 flows or 'river flows & levels' for Burtundy flows).

Another flow advice will be issued on Tuesday 18 December, or earlier if there are any significant variations to these planned releases.

ENDS

For media information contact the MDBA Media Office at media@mdba.gov.au or 02 6279 0141. For other information contact MDBA at inquiries@mdba.gov.au or 02 6279 0100.

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Lake Mulwala waterweed woes are under control

November 2012

At various times since about 2000 the recreational use of the highly valued Lake Mulwala has been somewhat restricted by the waterweed *Egeria densa*. At its worst it was difficult to launch a boat, troll a lure, swim and water-ski without getting tangled in weed.

To address the *Egeria* problem, the water level of the lake was lowered in winter 2008 (up to 2.86m below full supply). Drawdown of the lake to expose *Egeria* to drying and frost is considered the most effective management option available. Herbicides are not permitted on the lake and mechanical removal is impractical.

Further drawdowns in winter 2009 and 2011 exposed those weeds regrowing in shallower parts of the lake.

The good news is that a survey in March 2012 found that *Egeria* occupied only 1% of the lake, compared to around 60% in June 2008. The boat ramps are currently weed free and visitors are encouraged to come and enjoy the lake these holidays.



Photo: DPI Victoria

Former weed problem

Like most weeds, *Egeria* probably can't be eradicated altogether but it can be managed.

Ongoing and proactive waterweed management in Lake Mulwala aims to:

- Keep the lake relatively weed free for all aquatic sports
- Prevent *Egeria* from growing and decomposing in front of lake front houses and tourist amenities (for aesthetic reasons)
- Encourage a healthy mix of aquatic plants as this provides better habitat for native fish to flourish
- Prevent blockages at the hydroelectric power station and fishway on Yarrawonga Weir
- Prevent downstream spread (this is a risk because *Egeria* spreads from stem pieces that break from the main plant)

Goulburn-Murray Water and the Murray-Darling Basin Authority continue to work together and with community representatives to manage *Egeria* in Lake Mulwala.



Photo: Luke Cruikshank

The current position



Further information

Copies of reports on the *Egeria* monitoring since 2008 by DPI Victoria are available on request from Goulburn-Murray Water's Yarrawonga Weir office.

Phone: (03) 5744 3137

Email: yarrawonga.office@g-mwater.com.au



ALGAL ALERT BULLETIN

Sunraysia Regional Algal Coordinating Committee

Thursday, 29 November 2012

Precautionary alert for blue green algae in Murray River at Mildura

The Sunraysia Regional Algal Coordinating Committee has today issued a precautionary warning for blue-green algae for the Murray River from Red Cliffs through to the Mildura Weir.

Sunraysia RACC Chair, Owen Russell said initial routine sampling of the River Murray had identified high counts of potentially toxic blue-green algae at several sites between Red Cliffs and the Mildura Weir.

“Given the extreme heat that we are experiencing in the area, the algal numbers could increase rapidly and for this reason we are advising all water users to be cautious when entering this river stretch and be vigilant of any water showing scums or areas that appear bright green or exhibit a musty or earthy odour.”

Mr Russell said that water used for human consumption should be taken from private rainwater tanks or from the treated town water supplies in towns on both sides of the river.

“Blue -green algae poses a threat to recreational water users such as swimmers and residents are advised to keep animals away from any suspect areas. It’s for this reason that we are asking all river users to be cautious when entering or using the water.” Mr Russell said

“The species of blue-green algae identified are potentially toxic and may cause gastroenteritis in humans if consumed and skin and eye irritations after contact.”

Information updates about blue-green algae blooms and Red Level Warning areas can be obtained from the Regional Algal Coordinating Committee freecall Algal Information Hotline on 1800 999 457 or by visiting www.lmw.vic.gov.au or www.water.nsw.gov.au

Mitta Mitta River Flow advice



7 December 2012

Dartmouth minimum release on 12–13 December 2012

The release from Dartmouth Dam will be reduced to the minimum flow of 200 ML/day at Colemans from about noon on Wednesday 12 December until noon on 13 December 2012. This brief reduction in flow is required for operational purposes. Rates of rise and fall in the river at Colemans will follow operational guidelines.

Releases from Dartmouth Dam will be increased to a flow of 350–450 ML/day at Colemans by late Thursday 13 December.

With the forecast inflow from Snowy Creek, assuming no rain, the flow at Tallandoon may fall below 600 ML/day for a short time on about 13 December.

MDBA provides a flow forecast each Wednesday for the following week on the MDBA website at http://www.mdba.gov.au/water/river_info/storage_volumes.

Landholders and river users, including pumpers, should take in to account the increase flow rates along the Mitta Mitta River and make any necessary adjustments to their river activities.

ENDS

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