



RIVER MURRAY WEEKLY REPORT

FOR THE WEEKS ENDING WEDNESDAY, 30 DECEMBER 2009 & 06 JANUARY 2010

Trim Ref: D09/24704

Rainfall and Inflows

The Christmas - New Year period brought some significant rainfall focussed in two events that affected the north and south of the Basin (see Maps 1 and 2).

Starting around the 24th of December, a slow moving trough and rain depression developed across northern inland NSW from the remnants of Tropical Cyclone Laurence. In the Murray-Darling Basin the heaviest rain was recorded across the northern NSW slopes and plains, particularly in the lower Culgoa, Barwon, Macquarie, Castlereagh and Namoi catchments. These catchments had received very little rain over the past 6 months. Some notable rainfall totals to the week ending 30th December included 170 mm at Dubbo, 156 mm at Brewarrina and 153 mm at Coonamble.

Despite falling onto land that was initially dry, the persistent and widespread nature of the rain has resulted in some good stream-flow responses, particularly in the Castlereagh, Culgoa and Barwon Rivers.

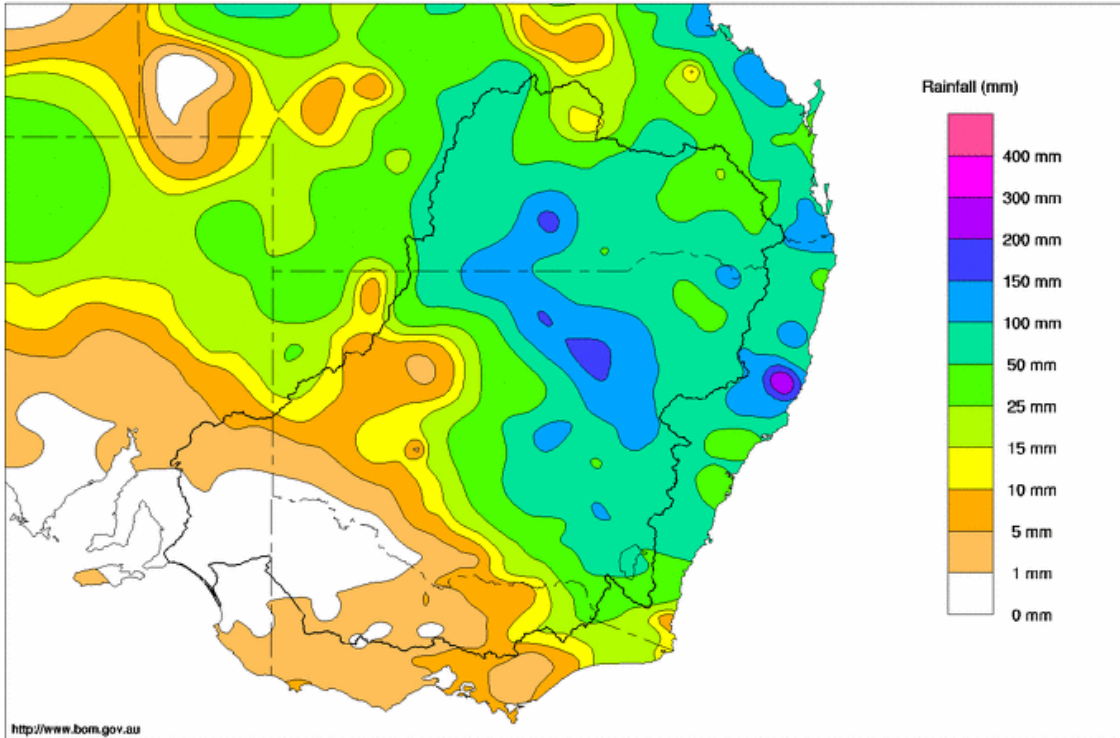
The combined flows from these rivers are now reaching the Darling. The flow front is now downstream of Tilpa, and the flow at Bourke has increased to 38,000 ML/day. The NSW Office of Water has advised that water is expected to begin arriving at the Menindee Lakes system around the middle of January. At this early stage it is expected that inflows will provide a welcome boost to Menindee levels. As further flow data is acquired in the coming weeks, the potential impacts, if any, on the River Murray System will be able to be determined.

Rain also fell in the southern part of the Basin early in the New Year. Intense thunderstorm activity on consecutive days resulted in heavy falls and localised flash flooding around the upper Goulburn catchment, and in the Ovens, King and Kiewa River catchments in the Victorian Alps. Some of the best totals for the week ending 6th January included 198 mm at Rocky Valley Dam, 150 mm at Lake William Hovell and 148 mm at Cheshunt; while 160 mm was recorded at Alexandra in the upper Goulburn catchment, much of it during one intense storm burst on the night of 1st January.

By contrast with the northern Basin rain, stream-flow responses were short and sharp. Intense rain brought the Buffalo River to the major flood level for a few hours but it subsequently receded quickly; and at Rocky Point on the Ovens River, flows jumped from 315 ML/day to peak at over 3,600 ML/day, but have since receded to 1,200 ML/day. Very limited responses occurred in the upper Murray and Mitta Mitta catchments, and overall the event will provide only a small boost to total River Murray System inflows.

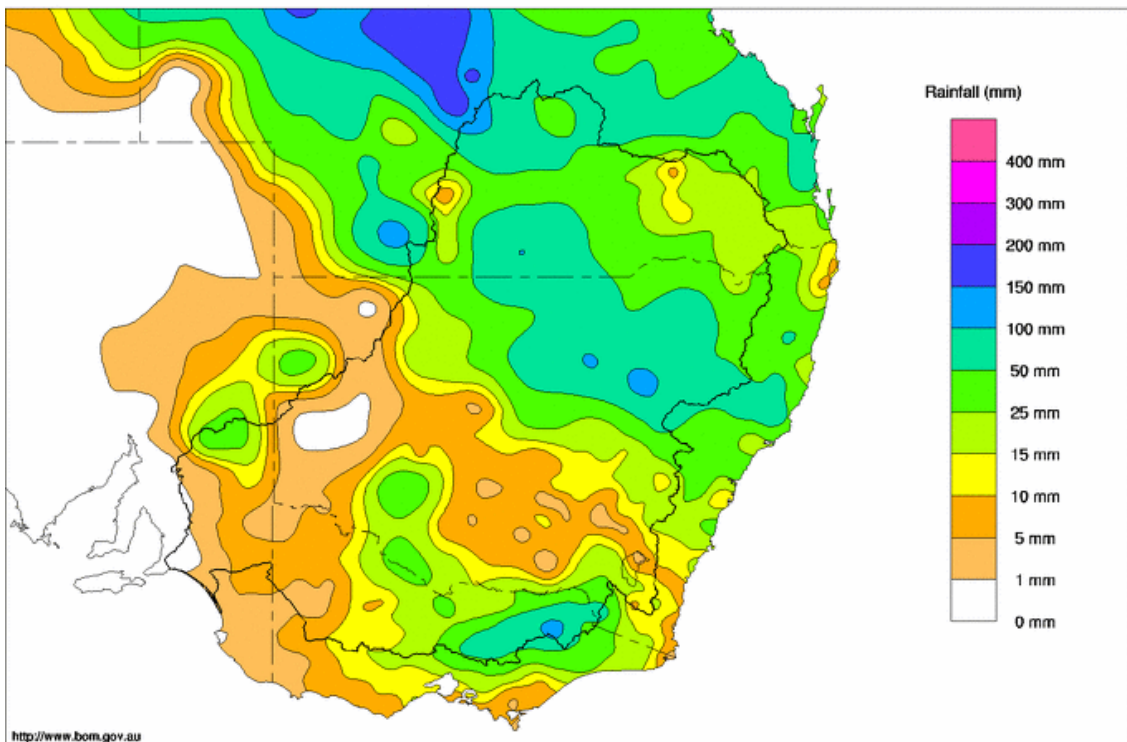


Murray Darling Rainfall Analysis (mm) Week Ending 30th December 2009
Product of the National Climate Centre



Map 1

Murray Darling Rainfall Analysis (mm) Week Ending 6th January 2010
Product of the National Climate Centre

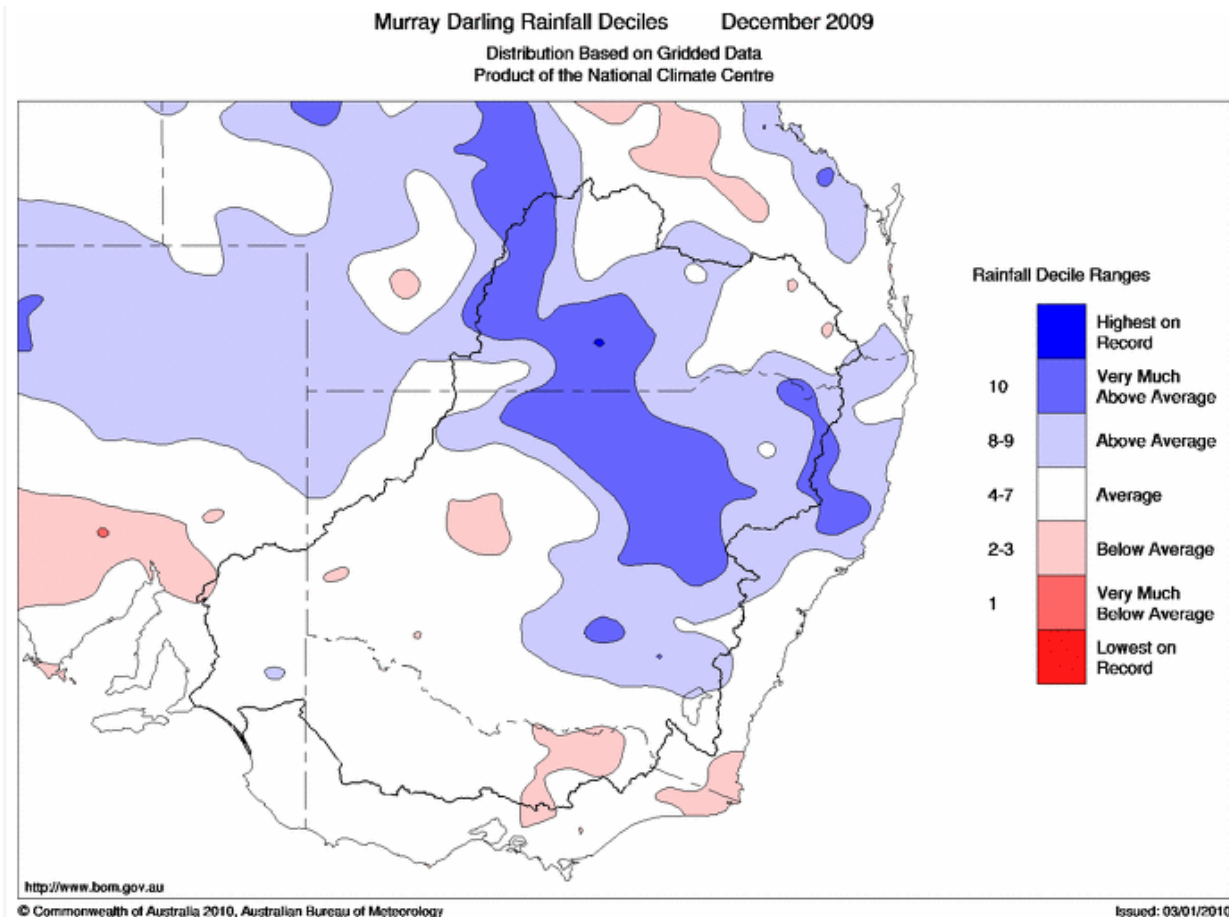


Map 2



December 2009 summary

In December 2009 average rainfall was recorded over most of the southern Basin, with the rain late in the month resulting in above average to very much above average totals over much of the northern Basin (see Map 3). Following on from the hot dry weather during November in the southern Basin, Murray system inflows continued to recede to about 120 GL for the month of December. This is less than the 170 GL received during December 2008 and well under the long term December average of 420 GL.



Map 3

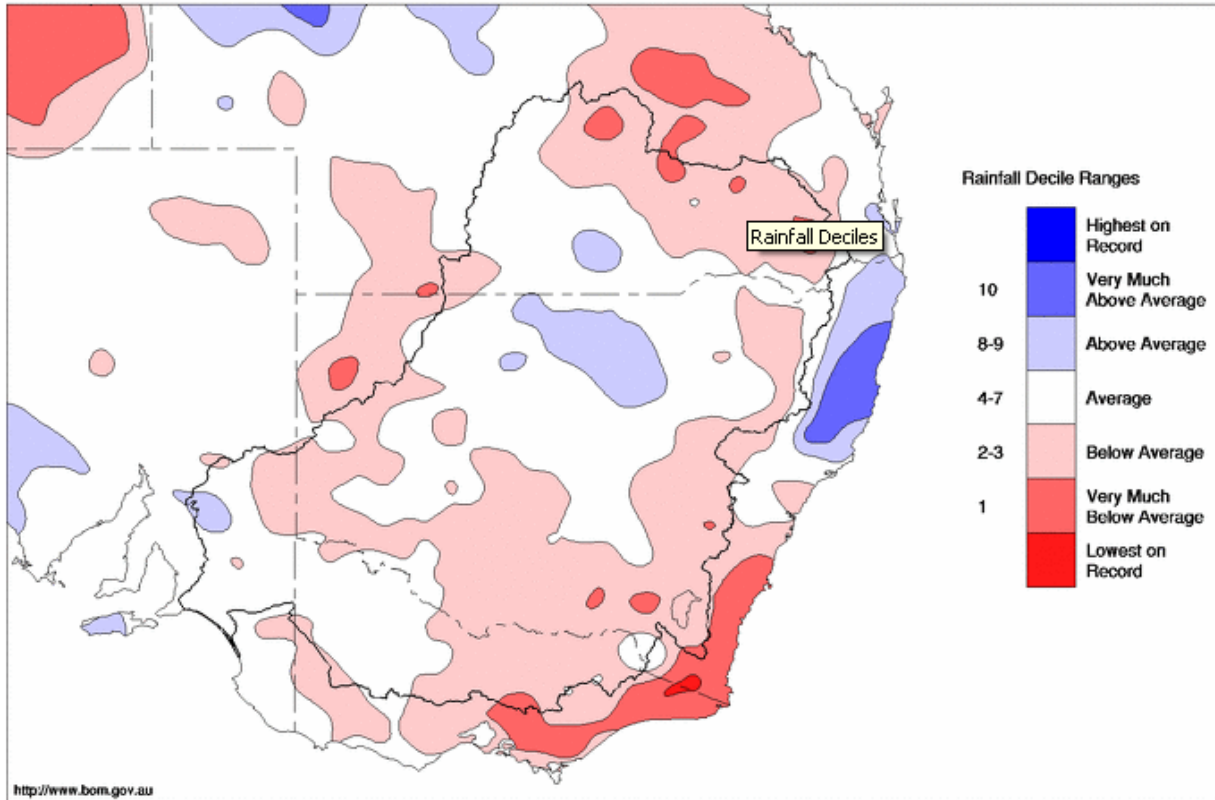
2009 rainfall summary

Rainfall over the Basin during the 2009 calendar year was - once again - generally below average (see Map 4). Despite some notable rain events at the beginning and end of the year, consistent with the variable climate of Australia, and some average falls in the Snowy Mountains headwaters, generally the Basin continued experiencing low rainfall when observed across the entire year. This on-going pattern has contributed to the continuation of lower than average inflows across the Basin and generally low storage levels.



Murray Darling Rainfall Deciles 1 January to 31 December 2009

Distribution Based on Gridded Data
Product of the National Climate Centre



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

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Issued: 01/01/2010

Map 4

River Operations to 6th January 2010

Over the last two weeks, MDBA active storage decreased by 121 GL to 2,143 GL (or 25% capacity), which is higher than this time last year (1,742 GL or 20% capacity).

Total storage in Dartmouth Reservoir has remained steady at 1,195 GL or around 31 % capacity. The second flow pulse to deliver water to Lake Hume was completed around 3rd January, with the flow measured at Colemans gauge now back to 450 ML/day after peaking around 4,600 ML/day prior to Christmas.

Total storage in Hume Reservoir decreased by 109 GL to 800 GL (26% capacity) over the last two weeks. The release was reduced early in the New Year in response to the short burst of higher inflows from the Ovens and Kiewa Rivers and was briefly targeting around 10,000 ML/day at Doctors Point (downstream of Hume Dam). The release has since been increased to target 12,500 ML/day and is expected to rise a little more over the coming days.

The water level in Lake Mulwala rose slightly over the Christmas – New Year period from 124.72 m AHD (on 24 December) to 124.80 m AHD, which is 10 cm below FSL. The level is expected to decrease slightly over the coming days, and stay between 124.7 and 124.8 m AHD in the coming week. The release from Yarrowonga Weir was temporarily increased from 10,200 to 10,500 ML/day early in the New Year but has now been reduced back to 10,000 ML/day.

On the Edward River, Stevens Weir has been targeting a release of 2,500 ML/day over the last two weeks but has now been reduced to a target of 2,200 ML/day. The small salt spike that entered the Murray from the Wakool River replenishment flow continues to move through the system with salinity levels at Boundary Bend now back to around normal levels.



In response to the rain in early January, the flow along the Goulburn River downstream of Eildon Dam has temporarily increased. The flow at McCoy's Bridge on the lower Goulburn is expected to increase from 700 ML/day up to about 1,000 ML/day over the coming days. Further downstream on the Murray, Torrumbarry Weir remains at Full Supply Level with a steady release of around 7,100 ML/day, which is expected to continue for the coming days.

On the mid Murray, the release at Euston Weir has been increased to 10,100 ML/day after decreasing below 10,000 ML/day during the New Year period. The releases at Mildura and Wentworth Weirs have been fairly steady and are expected to remain so over the coming days, while the pool levels at Euston, Mildura and Wentworth are all at or above Full Supply Level.

Storage in Menindee Lakes (which remain under NSW control) decreased by 15 GL to 129 GL (7% capacity) with no inflows from the Darling system. However, the situation in Menindee is now expected to change significantly in the coming weeks as the new flows from further upstream on the Darling River arrive around mid January. Updates will be provided in future weekly reports.

Storage in Lake Victoria decreased by 13 GL to 357 GL (53% capacity) over the last two weeks, and should continue to decline slightly over the coming week. The target flow to South Australia has been increased from 5,100 to 6,850 ML/day from the start of 2010, and as a result the flow past Lock 1 (which is currently at 2,300 ML/day) is expected to increase towards 3,000 ML/day in the coming week, providing additional flows into Lake Alexandrina.

The water level in Lake Alexandrina is steady at -0.82 m AHD, while at Lake Albert (which remains separated from Lake Alexandrina) the level has decreased over the last two weeks from -0.54 m AHD to -0.68 m AHD. This is the lowest level ever recorded. The water level in Goolwa Channel (which is separated from Lake Alexandrina by an earth embankment) decreased from 0.47 to 0.37 m AHD.

For media inquiries contact: Sam Leone on 02 6279 0141

DAVID DREVERMAN
Executive Director, River Murray

Week ending Wednesday 30 Dec 2009

Water in Storage

MDBA Storages	Full Supply Level (m AHD)	Full Supply Volume (GL)	Current Storage Level (m AHD)	Current Storage		Dead Storage (GL)	MDBA Active Storage (GL)	Change in Total Storage for the week (GL)
				(GL)	%			
Dartmouth Reservoir	486.00	3 906	429.81	1 190	30%	80	1 110	-5
Hume Reservoir	192.00	3 038	177.11	843	28%	30	813	-66
Lake Victoria	27.00	677	24.21	366	54%	100	266	-4
Menindee Lakes		1 731 *		137	8%	(- -) #	0	-7
Total		9 352		2 536	27%	--	2 189	-82

* Menindee surcharge capacity 2050 GL

% of Total Active MDBA Storage = **26%**

NSW takes control of Menindee Lakes when storage falls below 480 GL, and control reverts to MDBA when storage next reaches 640 GL

** All Data is rounded to nearest GL **

Major State Storages

Burrinjuck Reservoir	1 026	437	43%	3	434	+4
Blowering Reservoir	1 631	515	32%	24	491	-13
Eildon Reservoir	3 334	1 049	31%	100	949	-15

Snowy Mountains Scheme

Snowy diversions for week ending 29-Dec-2009

Storage	Active storage (GL)	Weekly change (GL)	Diversions (GL)	This week	From 1 May 2009
Lake Eucumbene - Total	1 177	-1	Snowy-Murray	+5	399
Snowy-Murray Component	788	+3	Tooma-Tumut	+0	221
Target Storage	1 510		Nett Diversion	5.5	178
			Murray 1 Release	+6	609

Major Diversions from Murray and Lower Darling (GL) *

New South Wales	This week	From 1 July 2009	Victoria	This week	From 1 July 2009
Murray Irrig. Ltd (Net)	4.0	102.2	Yarrowonga Main Channel (net)	2.0	69
Wakool Sys Allowance	1.7	34.5	Torrumbury System + Nyah (net)	4.2	113
Western Murray Irrig.	1.1	11.4	Sunraysia Pumped Districts	n/a	n/a
Licensed Pumps	2.9	49.8	Licensed pumps - GMW (Nyah+u/s)	0.2	3
Lower Darling	0.3	4.7	Licensed pumps - LMW	9.0	121
TOTAL	10.0	202.6	TOTAL	15.4	306

* 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 is rounded to nearest 100 ML for the above**

Flow to South Australia (GL)

Entitlement this month	217 *	
Flow this week	38.1	(5 400 ML/day)
Flow so far this month	149	
Flow last month	142	

* Reduced to approx. 150 GL during December drought contingency operations

Salinity (EC)

(microsiemens/cm @ 25° C)

	Current	Average over the last week	Average since 1 August 2009
Swan Hill	50	50	70
Euston	140	150	90
Red Cliffs	130	120	110
Merbein	130	120	100
Burtundy (Darling)	600	600	530
Lock 9	100	90	140
Lake Victoria	140	170	200
Berri	210	210	380
Waikerie	-	-	520
Morgan	410	440	590
Mannum	730	740	610
Murray Bridge	670	650	690
Milang (Lake Alex.)	5 600	5 490	5 400
Poltalloch (Lake Alex.)	5 600	5 550	4 960
Meningie (Lake Alb.)	13 820	13 910	10 120
Goolwa Barrages	10 900	10 810	13 710

Week ending Wednesday 30 Dec 2009

River Levels and Flows

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	-	-	-	2 440	R	1 580	1 760
Jingellic	4.0	1.31	207.83	1 930	R	2 460	1 990
Tallandoon (Mitta Mitta River)	4.2	1.74	218.63	1 210	F	1 630	2 660
Heywoods	5.5	2.87	156.50	12 750	S	12 750	12 410
Doctors Point	5.5	2.90	151.37	13 200	S	13 370	13 190
Albury	4.3	1.89	149.33	-	-	-	-
Corowa	7.0	2.73	128.75	13 300	F	13 420	13 410
Yarrowonga Weir (d/s)	6.4	1.68	116.72	10 170	F	10 230	10 210
Tocumwal	6.4	2.19	106.03	10 010	F	10 050	10 000
Torrumbarry Weir (d/s)	7.3	2.40	80.95	7 270	S	7 230	7 210
Swan Hill	4.5	1.43	64.35	7 390	S	7 400	7 520
Wakool Junction	8.8	3.10	52.22	8 630	S	8 630	8 770
Euston Weir (d/s)	8.8	1.98	43.82	9 790	F	10 010	10 260
Mildura Weir (d/s)	-	-	-	6 920	F	7 120	7 410
Wentworth Weir (d/s)	7.3	3.11	27.87	6 160	R	6 100	6 590
Rufus Junction	-	3.20	20.13	4 870	R	4 710	4 370
Blanchetown (Lock 1 d/s)	-	-0.50	-	2 120	S	2 100	2 140
Tributaries							
Kiewa at Bandiana	2.7	0.79	154.02	310	S	450	530
Ovens at Wangaratta	11.9	7.74	145.42	330	F	420	510
Goulburn at McCoys Bridge	9.0	1.28	92.70	610	S	600	600
Edward at Stevens Weir (d/s)	-	2.28	82.06	2 430	S	2 500	2 480
Edward at Liewah	-	2.69	58.07	2 150	S	2 160	2 110
Wakool at Stoney Crossing	-	1.32	54.81	230	S	230	270
Murrumbidgee at Balranald	5.0	1.49	57.45	1 030	F	1 090	1 240
Barwon at Mungindi	-	3.17	-	10	R	20	10
Darling at Bourke	-	5.71	-	12 490	R	3 400	0
Darling at Burtundy Rocks	-	0.67	-	40	F	50	70

Natural Inflow to Hume (ie pre Dartmouth & Snowy Mountains scheme)	1 960	1 890
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Weirs and Locks

Pool levels above or below Full Supply Level (FSL)

Murray	FSL (mAHD)	u/s	d/s		FSL (mAHD)	u/s	d/s
Yarrowonga	124.90	-0.14	-	No. 7 Rufus River	22.10	+0.08	+0.92
No. 26 Torrumbarry	86.05	+0.00	-	No. 6 Murtho	19.25	-0.06	-0.00
No. 15 Euston	47.60	-0.02	-	No. 5 Renmark	16.30	-0.01	+0.13
No. 11 Mildura	34.40	+0.06	+0.27	No. 4 Bookpurnong	13.20	-0.01	+0.55
No. 10 Wentworth	30.80	+0.07	+0.47	No.3 Overland Corner	9.80	-0.02	+0.09
No. 9 Kulnine	27.40	+0.05	+0.05	No. 2 Waikerie	6.10	-0.06	+0.14
No. 8 Wangumma	24.60	+0.00	+1.19	No 1. Blanchetown	3.20	-0.01	-1.25

Murrumbidgee	FSL (mAHD)	relation to FSL	d/s gauge ht.		Flow (ML/day)
			local (m)	(m AHD)	
No. 7 Maude	75.40	-3.76	1.42	70.77	1496
No. 5 Redbank	66.90	+0.04	1.17	62.47	1451

Lower Lakes

FSL = 0.75 m AHD

	(mAHD)
Lake Alexandrina average level for the past 5 days	-0.82

Barrages

Fishways @ Barrages

	Openings	Level (m AHD)	Status	Rock Ramp	Vertical Slot
Goolwa	128 openings	0.42	All closed	-	Closed
Mundoo	26 openings	-	All closed	-	-
Boundary Creek	6 openings	-	All closed	-	-
Ewe Island	111 gates	-	All closed	-	-
Tauwichee	322 gates	-	All closed	Closed	Closed

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

Week ending Wednesday 06 Jan 2010

Water in Storage

MDBA Storages	Full Supply Level (m AHD)	Full Supply Volume (GL)	Current Storage Level (m AHD)	Current Storage		Dead Storage (GL)	MDBA Active Storage (GL)	Change in Total Storage for the week (GL)
				(GL)	%			
Dartmouth Reservoir	486.00	3 906	429.98	1 195	31%	80	1 115	+5
Hume Reservoir	192.00	3 038	176.68	800	26%	30	770	-43
Lake Victoria	27.00	677	24.12	357	53%	100	257	-9
Menindee Lakes		1 731 *		129	7%	(- -) #	0	-8
Total		9 352		2 482	27%	- -	2 143	-54

* Menindee surcharge capacity 2050 GL

% of Total Active MDBA Storage = **25%**

NSW takes control of Menindee Lakes when storage falls below 480 GL, and control reverts to MDBA when storage next reaches 640 GL

** All Data is rounded to nearest GL **

Major State Storages

Burrinjuck Reservoir	1 026	435	42%	3	432	-2
Blowering Reservoir	1 631	486	30%	24	462	-29
Eildon Reservoir	3 334	1 053	32%	100	953	+4

Snowy Mountains Scheme

Snowy diversions for week ending 05-Jan-2010

Storage	Active storage (GL)	Weekly change (GL)	Diversion (GL)	This week	From 1 May 2009
Lake Eucumbene - Total	1 162	-15	Snowy-Murray	+14	413
Snowy-Murray Component	778	-10	Tooma-Tumut	+0	221
Target Storage	1 520		Nett Diversion	13.5	191
			Murray 1 Release	+13	623

Major Diversions from Murray and Lower Darling (GL) *

New South Wales	This week	From 1 July 2009	Victoria	This week	From 1 July 2009
Murray Irrig. Ltd (Net)	2.3	101.2	Yarrowonga Main Channel (net)	3.0	72
Wakool Sys Allowance	1.4	35.9	Torrumbarry System + Nyah (net)	2.8	113
Western Murray Irrig.	1.0	12.4	Sunraysia Pumped Districts	n/a	n/a
Licensed Pumps	2.9	52.7	Licensed pumps - GMW (Nyah+u/s)	0.1	3
Lower Darling	0.3	5.0	Licensed pumps - LMW	9.0	130
TOTAL	7.9	207.2	TOTAL	14.9	317

* 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 is rounded to nearest 100 ML for the above**

Flow to South Australia (GL)

Entitlement this month	217 *	
Flow this week	46.6	(6 700 ML/day)
Flow so far this month	41	
Flow last month	155	

* Reduced to approx. 210 GL during January drought contingency operations

Salinity (EC)

(microsiemens/cm @ 25° C)

	Current	Average over the last week	Average since 1 August 2009
Swan Hill	60	60	60
Euston	90	100	90
Red Cliffs	-	140	110
Merbein	180	150	100
Burtundy (Darling)	610	610	530
Lock 9	120	120	140
Lake Victoria	180	170	200
Berri	210	220	370
Waikerie	-	-	520
Morgan	410	410	580
Mannum	760	750	620
Murray Bridge	700	690	690
Milang (Lake Alex)	5 950	5 810	5 420
Poltalloch (Lake Alex)	5 420	5 450	4 980
Meningie (Lake Alb.)	14 740	14 370	10 310
Goolwa Barrages	11 200	11 080	13 600

Week ending Wednesday 06 Jan 2010

River Levels and Flows

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	-	-	-	4 350	R	3 360	1 580
Jingellic	4.0	1.39	207.91	2 450	F	3 710	2 460
Tallandoon (Mitta Mitta River)	4.2	1.50	218.39	670	R	1 000	1 630
Heywoods	5.5	2.66	156.29	10 030	R	10 370	12 750
Doctors Point	5.5	2.74	151.21	11 500	R	11 680	13 370
Albury	4.3	1.72	149.16	-	-	-	-
Corowa	7.0	2.20	128.22	9 780	F	12 290	13 420
Yarrowonga Weir (d/s)	6.4	1.73	116.77	10 530	S	10 390	10 230
Tocumwal	6.4	2.25	106.09	10 420	S	10 200	10 050
Torrumbarry Weir (d/s)	7.3	2.36	80.91	7 140	R	7 200	7 230
Swan Hill	4.5	1.44	64.36	7 460	F	7 570	7 400
Wakool Junction	8.8	3.17	52.29	8 890	F	8 820	8 630
Euston Weir (d/s)	8.8	2.04	43.88	10 130	S	10 010	10 010
Mildura Weir (d/s)	-	-	-	6 920	F	6 910	7 120
Wentworth Weir (d/s)	7.3	3.06	27.82	5 870	F	5 950	6 100
Rufus Junction	-	3.40	20.33	6 160	F	5 880	4 710
Blanchetown (Lock 1 d/s)	-	-0.47	-	2 310	R	2 090	2 100
Tributaries							
Kiewa at Bandiana	2.7	1.43	154.66	1 200	F	1 180	450
Ovens at Wangaratta	11.9	8.29	145.97	1 630	F	2 190	420
Goulburn at McCoys Bridge	9.0	1.34	92.76	700	F	670	600
Edward at Stevens Weir (d/s)	-	2.42	82.19	2 650	F	2 590	2 500
Edward at Liewah	-	2.71	58.09	2 170	F	2 170	2 160
Wakool at Stoney Crossing	-	1.32	54.81	240	S	240	230
Murrumbidgee at Balranald	5.0	1.66	57.62	1 190	S	1 110	1 090
Barwon at Mungindi	-	3.24	-	80	F	120	20
Darling at Bourke	-	9.96	-	38 160	R	30 530	3 400
Darling at Burtundy Rocks	-	0.67	-	40	F	40	50

Natural Inflow to Hume (ie pre Dartmouth & Snowy Mountains scheme)	n/a	n/a
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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	-0.10	-	No. 7 Rufus River	22.10	+0.07	+1.10
No 26 Torrumbarry	86.05	+0.00	-	No. 6 Murtho	19.25	+0.05	+0.07
No. 15 Euston	47.60	+0.02	-	No. 5 Renmark	16.30	+0.03	+0.22
No. 11 Mildura	34.40	+0.05	+0.24	No. 4 Bookpurnong	13.20	+0.02	+0.74
No. 10 Wentworth	30.80	+0.05	+0.42	No.3 Overland Corner	9.80	-0.01	+0.17
No. 9 Kulnine	27.40	+0.03	+0.03	No. 2 Waikerie	6.10	-0.03	+0.20
No. 8 Wangumma	24.60	-0.02	+1.19	No 1. Blanchetown	3.20	-0.01	-1.22

Murrumbidgee	FSL (m AHD)	relation to FSL	d/s gauge ht.		Flow (ML/day)
			local (m)	(m AHD)	
No. 7 Maude	75.40	-1.45	1.455	70.805	1558
No. 5 Redbank	66.90	+0.01	1.4	62.7	1764

Lower Lakes

FSL = 0.75 m AHD

	(m AHD)
Lake Alexandrina average level for the past 5 days	-0.82

Barrages

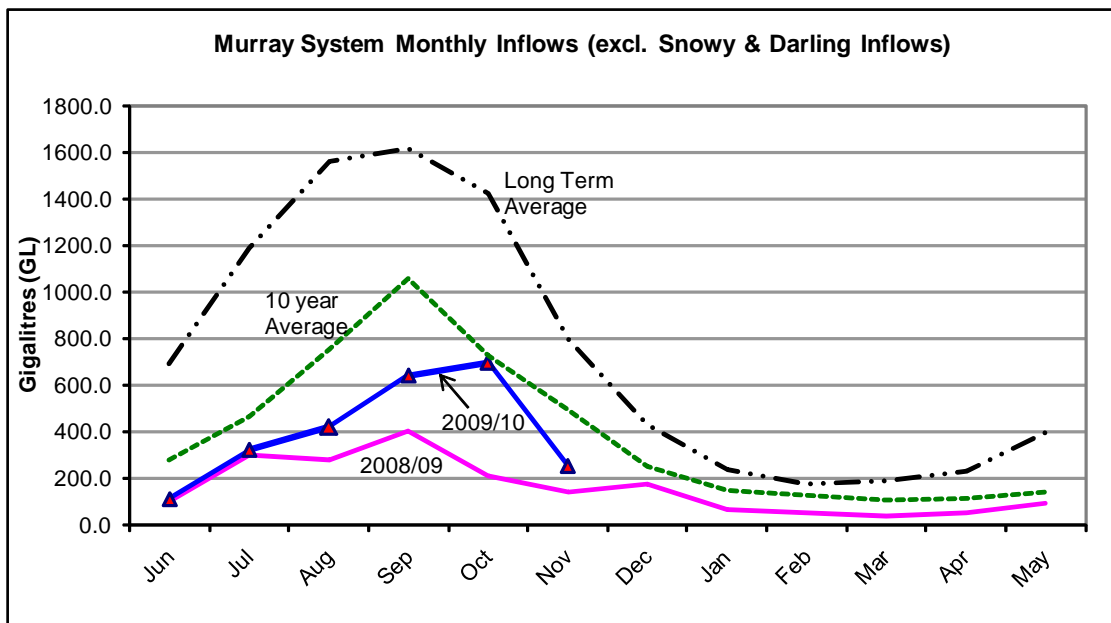
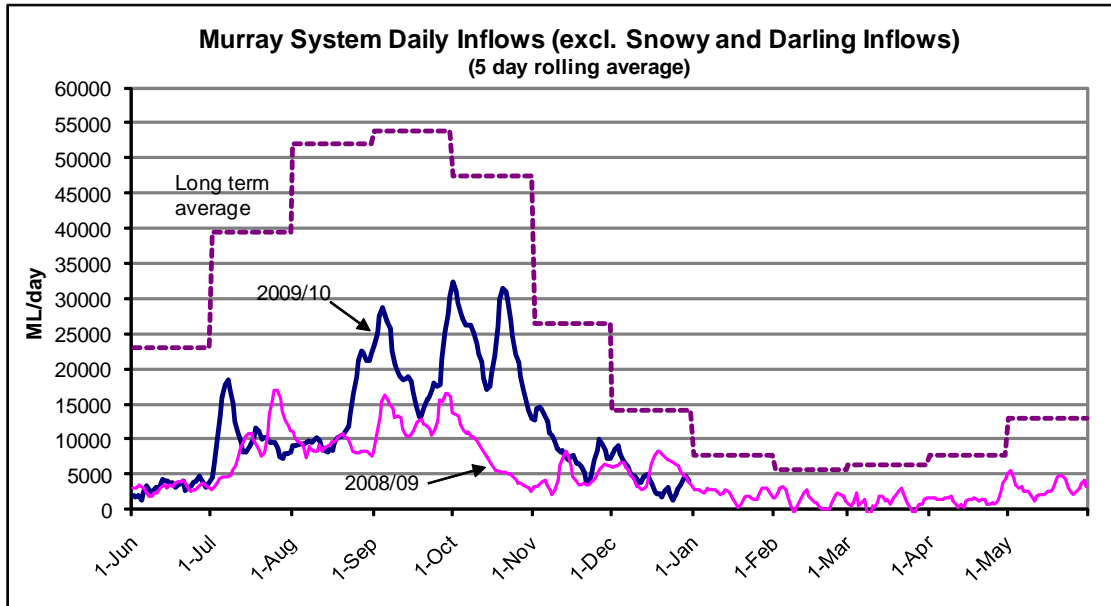
Fishways @ Barrages

	Openings	Level (m AHD)	Status	Rock Ramp	Vertical Slot
Goolwa	128 openings	0.37	All closed	-	Closed
Mundoo	26 openings	-	All closed	-	-
Boundary Creek	6 openings	-	All closed	-	-
Ewe Island	111 gates	-	All closed	-	-
Tauwichee	322 gates	-	All closed	Closed	Closed

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



Week ending Wednesday 30 December 2009



State Allocations (as at 30 December 2009)

NSW - Murray Valley

High security	97%
General security	10%

NSW - Murrumbidgee Valley

High security	95%
General security	15%

NSW - Lower Darling

High security	100%
General security	25%

Victoria - Murray Valley

high reliability	60%
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Victoria - Goulburn Valley

high reliability	49%
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South Australia - Murray Valley

High security	48%
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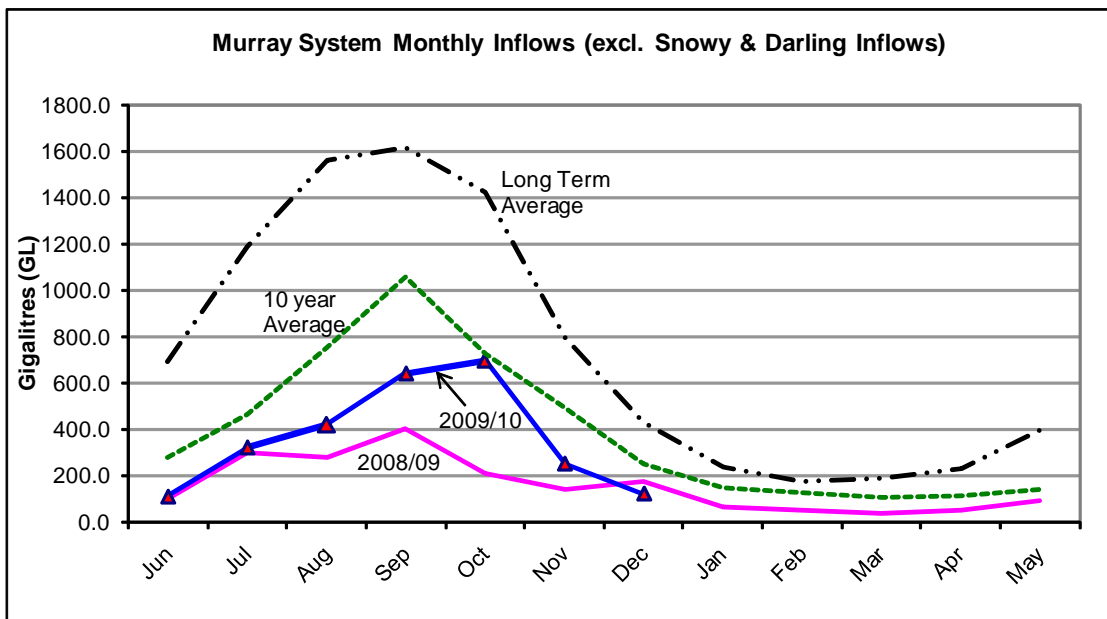
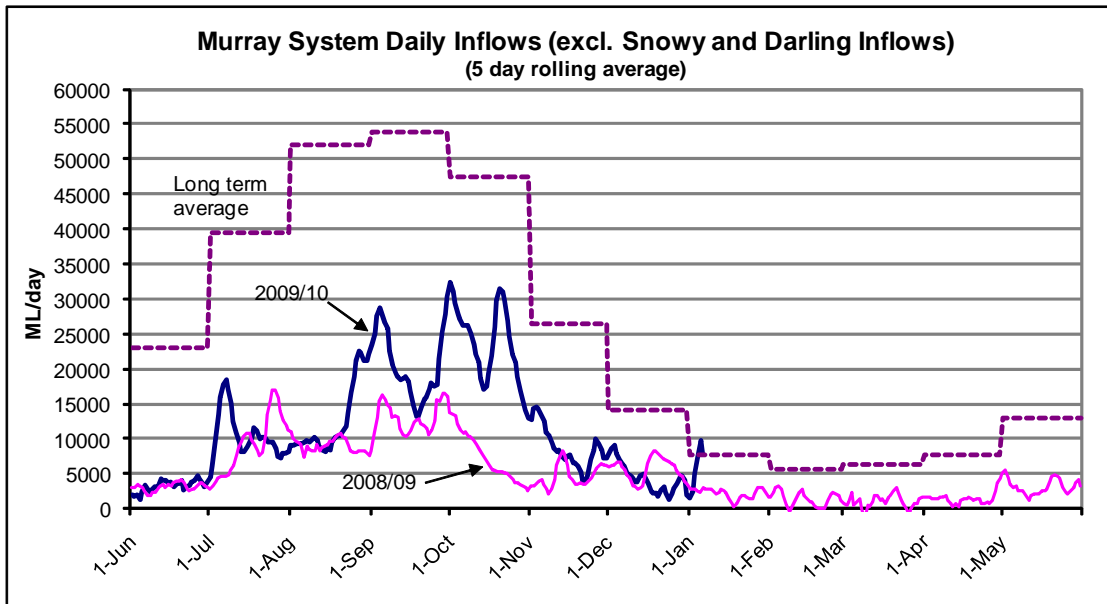
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VIC : <http://www.g-mwater.com.au/water-resources/allocations/current.asp>

SA : <http://www.dwlbc.sa.gov.au/media.html>



Week ending Wednesday 06 January 2010



State Allocations (as at 06 January 2010)

NSW - Murray Valley

High security	97%
General security	10%

Victoria - Murray Valley

high reliability	60%
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NSW - Murrumbidgee Valley

High security	95%
General security	15%

Victoria - Goulburn Valley

high reliability	50%
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NSW - Lower Darling

High security	100%
General security	25%

South Australia - Murray Valley

High security	48%
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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.dwlbc.sa.gov.au/media.html>

