



# RIVER MURRAY WEEKLY REPORT

FOR THE WEEK ENDING WEDNESDAY, 02 JUNE 2010

Trim Ref: D10/14820

## Rainfall and Inflows

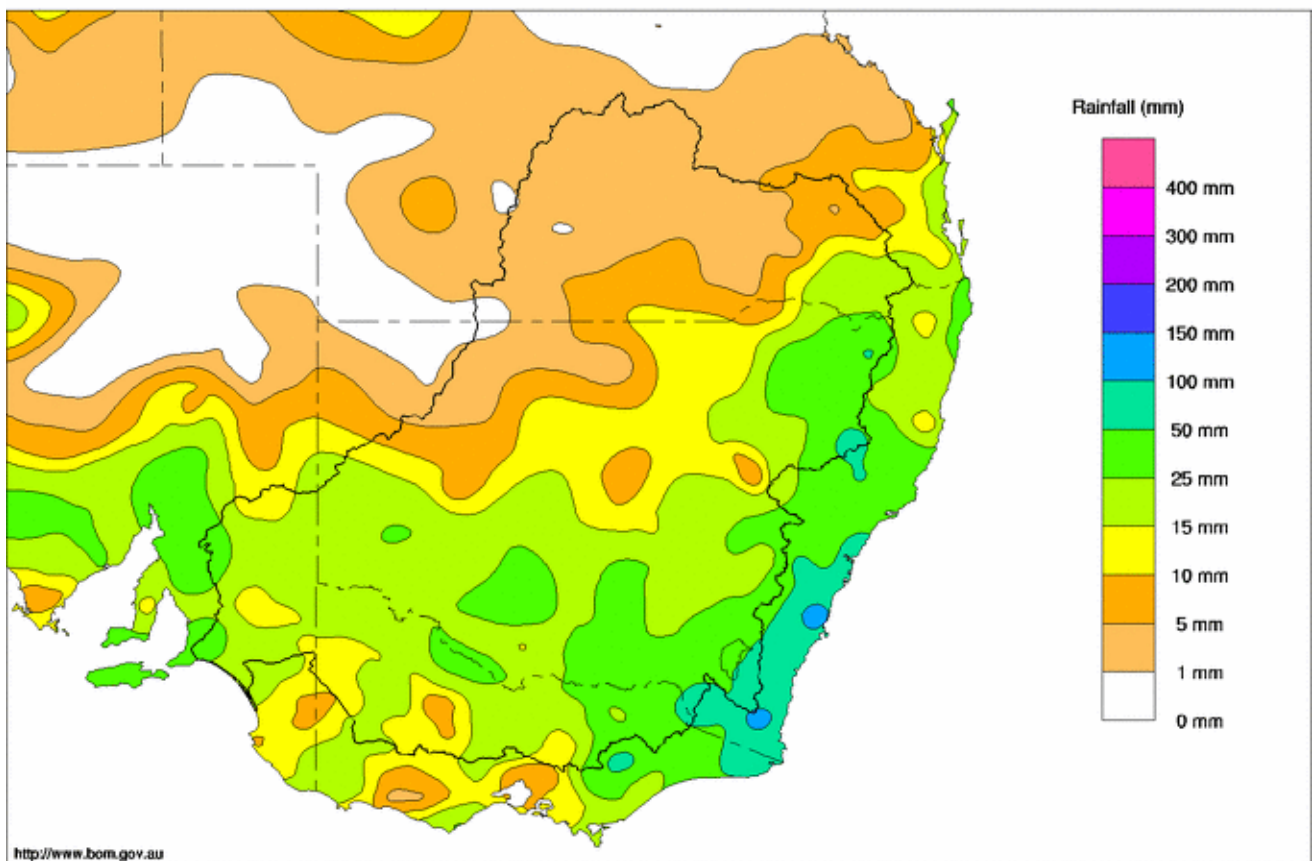
There were moderate falls of rain across most of the Murray-Darling Basin again this week (see Map 1). The highest falls of rain were in the catchments of the upper Murray and Murrumbidgee, while falls were lighter in the northern basin. Captains Flat, near Canberra, recorded 76 mm while Nagambie, on the Goulburn River in Victoria, recorded 46 mm.

Streamflow responses were moderate in the upper Murray tributaries, with the catchment primed from last week's rain. For example, at Mongans Bridge, which recorded 27 mm rain, the flow in the Kiewa River increased from 460 to 1,760 ML/day and at Hinnomunjie (17 mm rain), the Mitta Mitta River rose from 400 to 1,490 ML/day.

Murray System inflows (excluding Menindee Lakes) averaged 6.7 GL/day for the last 7 days, up from 4.0 GL/day last week. The long-term average is 12.4 GL/day for May and 22.6 GL/day for June.

On the Darling River, the flow at Bourke has declined to 290 ML/day and at Wilcannia is 4,730 ML/day. The flow at Wilcannia is mostly from the Paroo River and is declining slowly by about 130 ML/day.

Murray Darling Rainfall Analysis (mm) Week Ending 2nd June 2010  
Product of the National Climate Centre



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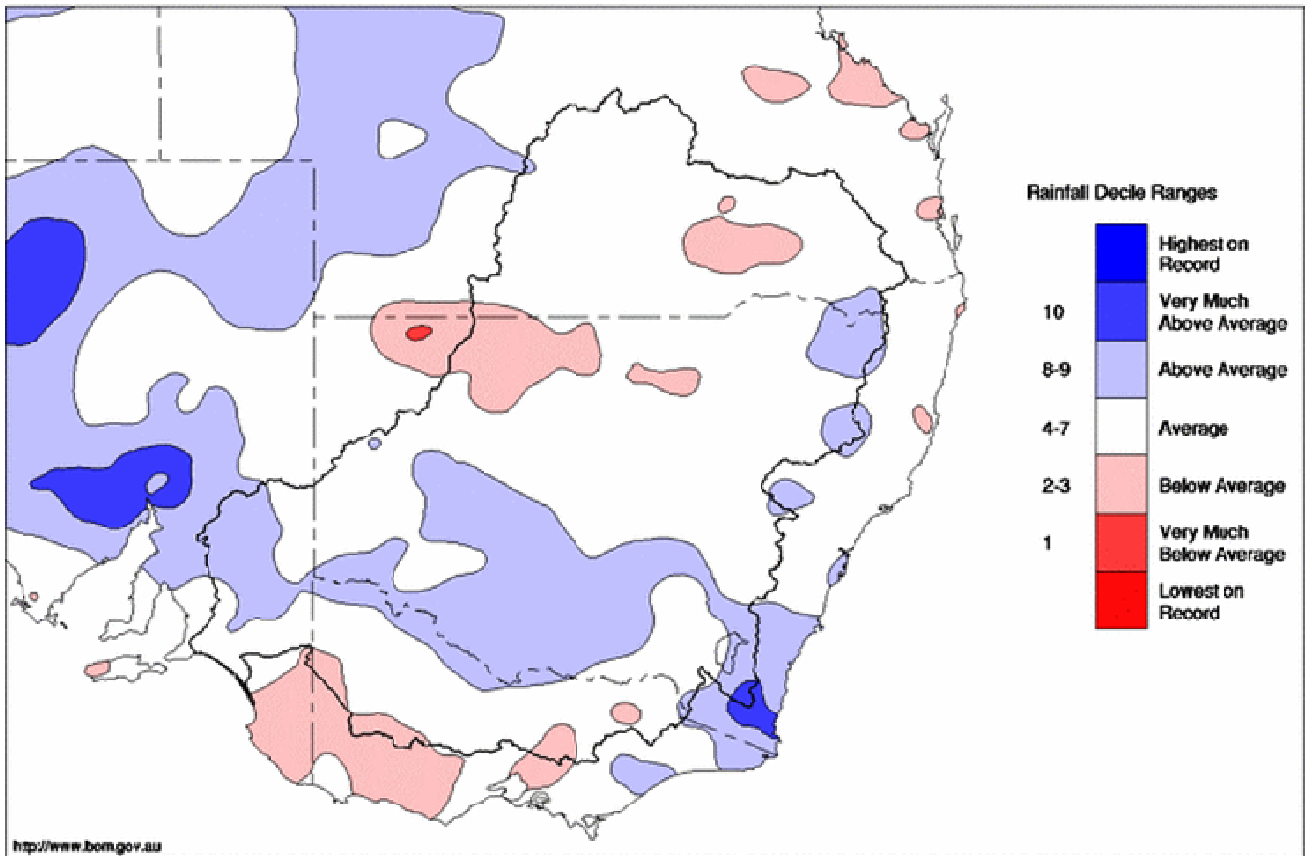
Map 1. Murray-Darling Basin rainfall for the week ending 2 June 2010 (Source: Bureau of Meteorology)



## May 2010 Summary

Rainfall in May was close to average across most of the Murray-Darling Basin (see Map 2), with the highest decile ranges near Mildura (54 mm) and Kerang (69 mm). Murray system inflows (excluding Snowy releases and Menindee inflows) for May were about 165 GL, which is below the long-term average of 385 GL, but higher than the 95 GL average for the previous 3 years.

Murray Darling Rainfall Deciles May 2010  
Distribution Based on Gridded Data  
Product of the National Climate Centre



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Issued: 01/06/2010

Map 2. Murray-Darling Basin rainfall deciles for May 2010 (Source: Bureau of Meteorology)

## Annual Summary 2009-10 Water Year<sup>1</sup>

In the 2009-10 water year, Murray system inflows (excluding Snowy releases and Menindee inflows) were 3,210 GL which was the 13th lowest in 119 years of records. Although this volume is significantly higher than in 2008-09 (1,870 GL), it is less than 40% of the long-term average of 8,790 GL (see Table 1). If Menindee inflows are included, the total system inflows were 5,260 GL, which is slightly less than half the long-term average of 10,910 GL.

In autumn 2010, above average rainfall was recorded across virtually all regions of the Murray-Darling Basin for the first time since 2000. Runoff from this rainfall, including a welcome boost to storage levels in Menindee Lakes, has increased water availability in the River Murray System. However, it may take many years of above average rainfall before storage levels fully recover.

<sup>1</sup> Water sharing under the Murray-Darling Basin Agreement uses a water year of June–May.

**Table 1. Murray System Inflows (excluding Menindee inflows and Snowy releases)**

	2009-10 (Gigalitres)	2008-09 (Gigalitres)	Historic Minimum (Gigalitres)	Long term average (Gigalitres)
March	200	35	35 (2009)	190
April	140	45	40 (2007)	230
May	165	95	75 (1902)	385
Water year (June – May)	3,210	1,870	970 (2006-07)	8,790

**Table 2. Murray System Inflows (including Menindee inflows, excluding Snowy releases)**

	2009-10 (Gigalitres)	2008-09 (Gigalitres)	Historic Minimum (Gigalitres)	Long term average (Gigalitres)
March	300	150	50 (2007)	360
April	660	50	40 (2007)	430
May	570	95	75 (1902)	580
Water year (June – May)	5,260	2,060	1,000 (2006-07)	10,910

At the start of the 2010-11 water year, there is sufficient water in the River Murray System to meet critical human water needs, evaporation and storage losses, distribution losses and the significant volume (approx. 1000 GL) of private carry-over. However, without further improvements in inflows, opening allocations for irrigators are expected to be low or zero. Water allocations in 2010-11 rely on the extent to which future inflows exceed the minimums used for planning. The situation in the other large irrigation systems in the southern Basin is understood to be similar to, or poorer than, the Murray because they have not had the benefit of the recent inflows from the Darling River.

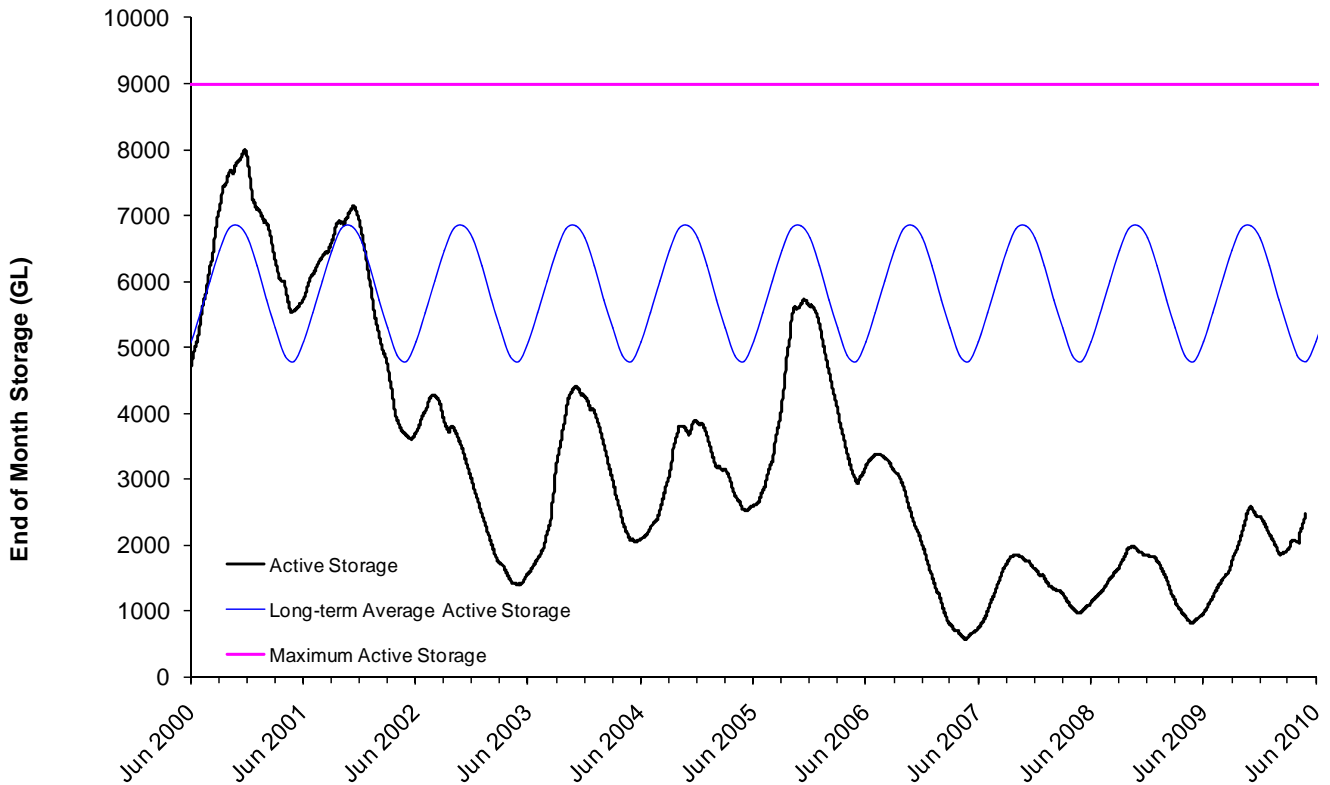
## River Operations

MDBA active storage (which now includes Menindee Lakes) has increased by 81 GL to 2,988 GL (34% capacity). This volume is significantly higher than this time last year (970 GL or 11% capacity), but still well below the long-term average of 5,090 GL for the end of May (see Figure 1).

Storage increased in Dartmouth Reservoir by 6 GL to 1,244 GL (32% capacity) and also in Hume Reservoir by 46 GL to 634 GL (21% capacity). Releases from Dartmouth Reservoir have been maintained at the normal minimum of 200 ML/day. Releases from Hume Reservoir are also targeting minimums of at least 600 ML/day at Heywoods or 1,200 ML/day at Doctors Point (near Albury).

This week, the release from Yarrowonga Weir has increased to 3,400 ML/day but this will be reduced to match declining inflows from the Kiewa and Ovens Rivers, if it remains dry. The pool level at Yarrowonga Weir is 124.71 m AHD (0.19 m below FSL) and is likely to remain fairly steady in coming weeks.

On the Edward River, NSW State Water have lowered the weir pool at Stevens Weir and removed the gates, as is normal winter practice. The river height at Stevens Weir is currently 0.80 m. This year, the weir pool lowering will also facilitate the installation of vertical slot fish ladder.



**Figure 1. MDBA active storage from June 2000 to June 2010**

The pool level at Torrumbarry Weir has continued to be raised during the week and is currently back at Full Supply Level (86.05 m AHD). The pool level is likely to remain steady for the foreseeable future. Euston, Mildura and Wentworth Weirs have remained steady at close to Full Supply Level. Note that, as advised in last week’s Weekly Report, the Mildura Weir pool will be fully drawn down over July to allow for upgrade works, and further details will be provided in coming weeks.

Menindee Lakes continue to fill, with the storage volume increasing during the week by 40 GL to 1,420 GL (82% capacity). Currently, Lakes Wetherell and Pamamaroo are fully surcharged while Lakes Menindee and Cawndilla are still filling at about 5,000 ML/day. The release from Menindee Lakes is currently at the normal June minimum of 200 ML/day.

Lake Victoria’s storage has decreased by 11 GL in the last week to 380 GL (56% capacity), and the storage volume is expected to continue decreasing for the next few weeks.

The water level of Lake Alexandrina continues to rise. Last week, the level rose by 0.07 m to -0.33 m AHD (1.08 m below FSL). It is expected that the level of Lake Alexandrina will continue to rise for the next few months.

**For media inquiries contact: Sam Leone on 02 6279 0141**

DAVID DREVERMAN  
Executive Director, River Murray

## Week ending Wednesday 02 Jun 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	431.50	1 244	32%	80	1 164	+6
Hume Reservoir	192.00	3 038	174.89	634	21%	30	604	+46
Lake Victoria	27.00	677	24.35	380	56%	100	280	-11
Menindee Lakes		1 731 *		1 420	82%	(480 #)	940	+40
<b>Total</b>		<b>9 352</b>		<b>3 678</b>	<b>39%</b>	<b>--</b>	<b>2 988</b>	<b>+81</b>

\* Menindee surcharge capacity 2050 GL

% of Total Active MDBA Storage = **34%**

# 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	354	35%	3	351	+6
Blowering Reservoir	1 631	614	38%	24	590	+13
Eildon Reservoir	3 334	824	25%	100	724	+7

### Snowy Mountains Scheme

Snowy diversions for week ending 01-Jun-2010

Storage	Active storage (GL)	Weekly change (GL)	Diversions (GL)	This week	From 1 May 2010
Lake Eucumbene - Total	596	-3	Snowy-Murray	+27	117
Snowy-Murray Component	451	+4	Tooma-Tumut	+5	15
Target Storage	1 240		Nett Diversion	22.6	102
			Murray 1 Release	+31	127

### 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)	-0.3***	246	Yarrowonga Main Channel (net)	0.0	148
Wakool Sys Allowance	-0.4***	64	Torrumbury System + Nyah (net)	0.0	329
Western Murray Irrig.	0.0	24	Sunraysia Pumped Districts	0.1	126
Licensed Pumps	2.0	111	Licensed pumps - GMW (Nyah+u/s)	1.0	28
Lower Darling	0.0	7	Licensed pumps - LMW	0.5	257
<b>TOTAL</b>	<b>1.3</b>	<b>452</b>	<b>TOTAL</b>	<b>1.6</b>	<b>888</b>

\* 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\*\*

\*\*\*Negative value due to draining channels returning flows at end of irrigation season

### Flow to South Australia (GL)

Entitlement this month	90 *	(5 400 ML/day)
Flow this week	38.0	
Flow so far this month	9	
Flow last month	172	

\* Flow to SA in June includes underdelivered entitlement flow from previous months

### Salinity (EC)

(microsiemens/cm @ 25° C)

	Current	Average over the last week	Average since 1 August 2009
Swan Hill	70	80	60
Euston	90	90	90
Red Cliffs	110	120	110
Merbein	110	110	110
Burtundy (Darling)	220	220	420
Lock 9	170	170	140
Lake Victoria	210	200	200
Berri	240	230	290
Waikerie	240	240	350
Morgan	280	290	440
Mannum	300	300	510
Murray Bridge	160	260	690
Milang (Lake Alex.)	4 240	5 130	5 560
Poltalloch (Lake Alex.)	1 350	1 420	4 210
Meningie (Lake Alb.)	14 110	14 530	13 150
Goolwa Barrages	21 260	21 280	15 410

## Week ending Wednesday 02 Jun 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	-	-	-	6 480	F	5 190	5 410
Jingellic	4.0	2.08	208.60	7 970	R	6 590	6 150
Tallandoon ( Mitta Mitta River )	4.2	1.37	218.26	430	F	440	340
Heywoods	5.5	1.25	154.88	600	S	600	680
Doctors Point	5.5	1.64	150.11	2 000	R	1 580	1 190
Albury	4.3	0.78	148.22	-	-	-	-
Corowa	7.0	0.57	126.59	1 650	S	1 590	1 270
Yarrowonga Weir (d/s)	6.4	0.69	115.73	3 400	R	3 230	2 200
Tocumwal	6.4	1.11	104.95	3 560	S	3 420	2 490
Torrumbarry Weir (d/s)	7.3	1.29	79.84	3 370	R	2 900	2 240
Swan Hill	4.5	0.76	63.68	3 130	F	3 230	2 480
Wakool Junction	8.8	1.95	51.07	4 130	F	4 150	3 370
Euston Weir (d/s)	8.8	1.09	42.93	4 790	F	4 380	3 000
Mildura Weir (d/s)	-	-	-	4 100	F	3 570	2 580
Wentworth Weir (d/s)	7.3	2.96	27.72	4 150	R	3 490	2 460
Rufus Junction	-	2.96	19.89	3 520	F	4 770	5 230
Blanchetown (Lock 1 d/s)	-	-0.07	-	5 430	F	5 480	5 030
<b>Tributaries</b>							
Kiewa at Bandiana	2.7	1.65	154.88	1 560	R	1 080	630
Ovens at Wangaratta	11.9	8.30	145.98	1 660	F	1 470	960
Goulburn at McCoys Bridge	9.0	1.18	92.60	470	R	420	350
Edward at Stevens Weir (d/s)	-	0.61	80.38	350	F	380	440
Edward at Liewah	-	1.25	56.63	660	F	830	1 160
Wakool at Stoney Crossing	-	-	-	160	F	170	150
Murrumbidgee at Balranald	5.0	0.47	-	230	R	270	260
Barwon at Mungindi	-	3.14	-	0	F	0	0
Darling at Bourke	-	4.08	-	290	F	340	450
Darling at Burtundy Rocks	-	0.89	-	550	R	580	640

<b>Natural Inflow to Hume</b> (ie pre Dartmouth & Snowy Mountains scheme)	4 300	2 310
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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	-0.19	-	No. 7 Rufus River	22.10	+0.09	+0.72
No 26 Torrumbarry	86.05	+0.00	-	No. 6 Murtho	19.25	-0.05	-0.03
No. 15 Euston	47.60	+0.00	-	No. 5 Renmark	16.30	-0.01	+0.18
No. 11 Mildura	34.40	+0.03	+0.09	No. 4 Bookpurnong	13.20	+0.01	+0.74
No. 10 Wentworth	30.80	+0.03	+0.32	No.3 Overland Corner	9.80	+0.04	+0.39
No. 9 Kulinine	27.40	+0.05	-0.15	No. 2 Waikerie	6.10	+0.09	+0.27
No. 8 Wangumma	24.60	-0.09	+0.63	No 1. Blanchetown	3.20	+0.04	-0.82

Murrumbidgee	FSL (m AHD)	relation to FSL	d/s gauge ht.		Flow (ML/day)
			local (m)	(m AHD)	
No. 7 Maude	75.40	-0.34	1.008	81.026	772
No. 5 Redbank	66.90	+0.07	0.04	61.166	183

### Lower Lakes

FSL = 0.75 m AHD

	(m AHD)
Lake Alexandrina average level for the past 5 days	-0.33

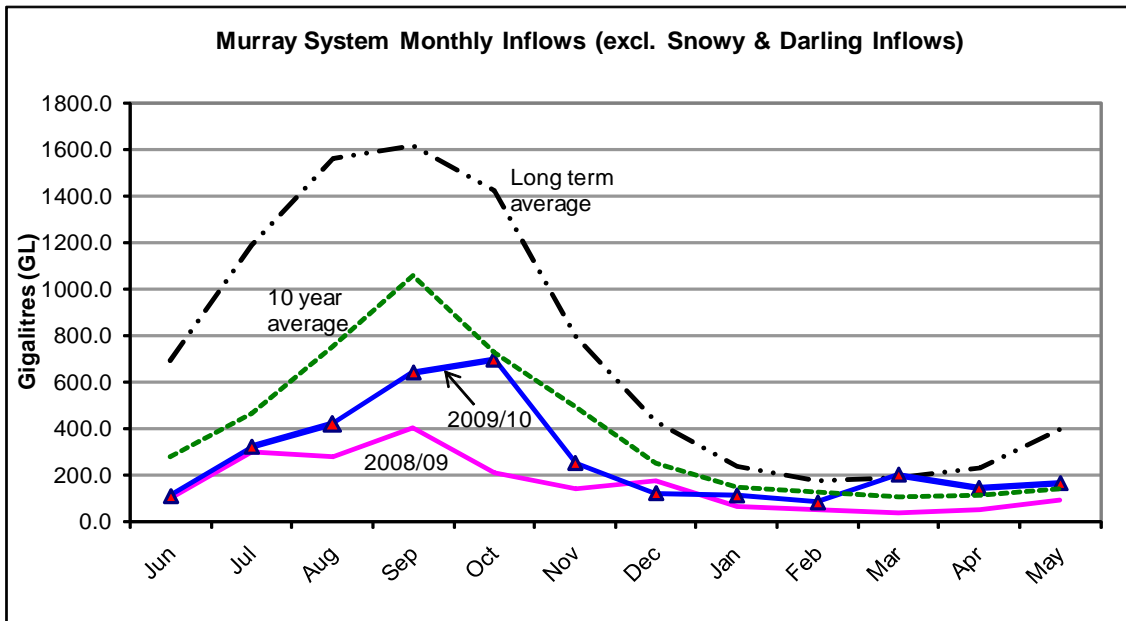
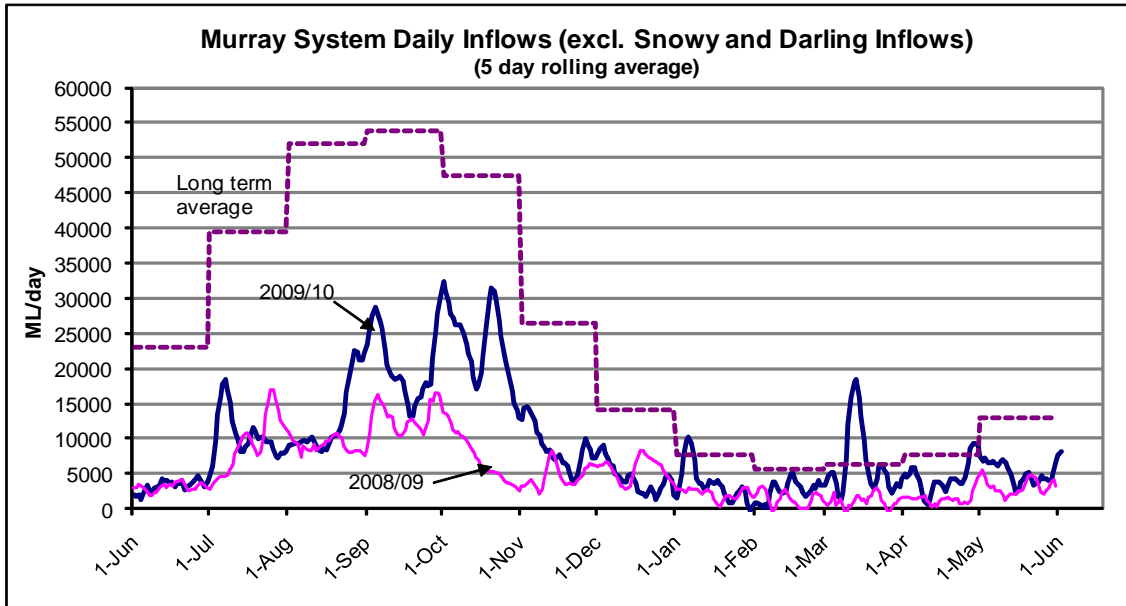
### Barrages

#### Fishways @ Barrages

	Openings	Level (mAHD)	Status	Rock Ramp	Vertical Slot
Goolwa	128 openings	-0.03	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



Week ending Wednesday 02 June 2010



State Allocations (as at 02 June 2010)

NSW - Murray Valley

High security	97%
General security	27%

Victoria - Murray Valley

High reliability	100%
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NSW - Murrumbidgee Valley

High security	95%
General security	27%

Victoria - Goulburn Valley

High reliability	71%
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NSW - Lower Darling

High security	100%
General security	100%

South Australia - Murray Valley

High security	62%
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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.dwibc.sa.gov.au/media.html>