



RIVER MURRAY WEEKLY REPORT

FOR THE WEEK ENDING WEDNESDAY, 24 JULY 2013

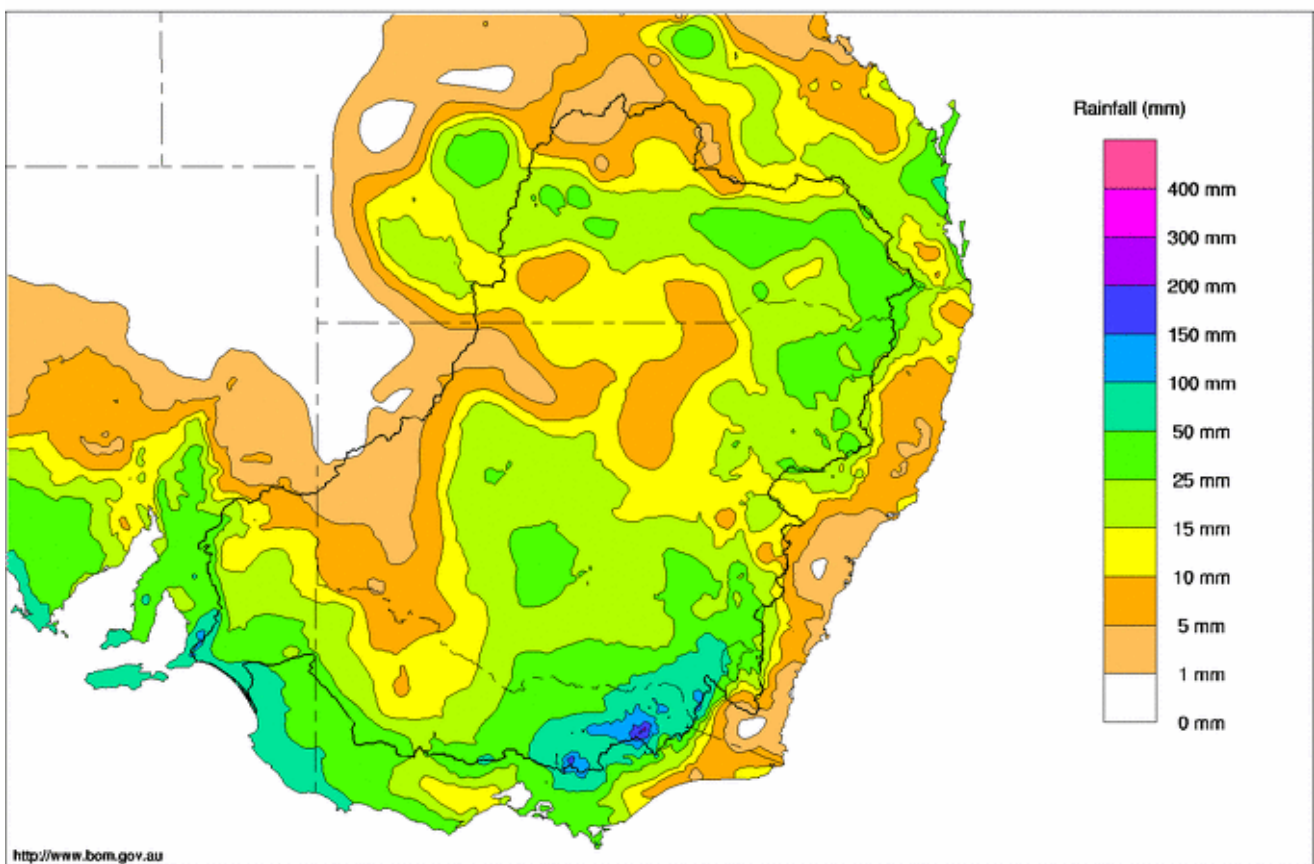
Trim Ref: D13/26178

Rainfall and Inflows

A low pressure system and strong cold front and associated cloud band produced rain across much of the Basin this week. Significant falls occurred in the southeast and southwest with totals exceeding 100 mm in elevated parts of northeast Victoria and southern New South Wales as well as the Mount Lofty Ranges in South Australia (Map 1). The highest weekly rainfall total was 221 mm at Falls Creek (Rocky Valley) in the alpine region in northeast Victoria.

Murray-Darling Rainfall Totals (mm) Week Ending 24th July 2013

Product of the National Climate Centre



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

© Commonwealth of Australia 2013, Australian Bureau of Meteorology

Issued: 24/07/2013

Map 1 - Murray-Darling Basin rainfall for the week ending 3 July 2013 (Source: Bureau of Meteorology).

Other significant rainfall totals in Victoria included 138 mm at Harrierville, 131 mm at Whitlands (Burder's Lane), 126 mm at Halls (Buckland River at Twelve Mile) and 114 mm at Merton (Enderlee). Within the Basin in NSW, there were totals around 100 mm in the Snowy Mountains and between 50 and 100 mm at Batlow, Burrinjuck Dam, Tumbarumba and Khancoban; in Queensland there were weekly totals around 50 mm at Dalveen, Leyburn TM and Ellangowan, while South Australia recorded weekly totals around 50 to 100 mm around the Lower Lakes and eastern Mt Lofty Ranges.

Streams responded well to the rain, with flows increasing across all the upper Murray tributaries. On the upper River Murray, the flow at Biggara peaked around 6,700 ML/day; while downstream at Jingellic the flow peaked around 27,000 ML/day – the highest flow at this gauge since March 2012. On the Mitta Mitta River, the flow at Hinnomunjie Bridge peaked around 12,700 ML/day; while the peak inflow from the Kiewa River was about 8,000 ML/day. On the Ovens River, the flow at Rocky Point peaked around 25,000 ML/day, which is the highest flow at this gauge since March 2012.



River Operations

MDBA active storage increased by 267 GL this week and is now 7,146 GL (83% capacity).

At Dartmouth Reservoir, the storage volume increased by 56 GL to 3,721 GL (96% capacity). The release from Dartmouth was increased to 4,000 ML/day at Colemans gauge on 24 July as AGL Hydro is using entitlement water for electricity generation. The flow downstream of Dartmouth Reservoir is likely to remain at least 3,000 ML/day during the coming week.

Net inflows to Hume Reservoir totalled 202 GL this week, which increased the storage volume to 2,241 GL (75% capacity). High inflows during the coming week, with releases remaining at the minimum of 600 ML/day, will continue to boost Hume storage volume. The storage volume is expected to exceed 80% capacity by early August.

At Yarrawonga Weir, the pool level has risen to 124.76 m AHD (on 25 July) and the release has been increased to 29,000 ML/day due to the high inflows from the Kiewa and Ovens Rivers. The release is expected to be decreased during the coming week as inflows recede, and will be adjusted to target a level in Lake Mulwala of about 124.7 m AHD. In the Barmah-Millewa Forest, the regulators are being opened ahead of the higher flows.

On the Edward-Wakool system, a total of about 2,000 ML/day is flowing through the Edward River and Gulpa Creek offtakes, which are now open. This flow will increase in the coming days as the higher releases from Yarrawonga arrive. At Stevens Weir, the water level has decreased to 2.2 m local gauge height while the flow downstream has increased to about 800 ML/day.

On the Goulburn River, the flow at McCoys increased to 3,400 ML/day and it is expected to reach about 4,000 ML/day later this week. Downstream at Torrumbarry Weir, the flow in the River Murray has started to increase and is currently 4,100 ML/day. Flows are expected to continue increasing during the next week, and may reach 10,000 ML/day. Murrumbidgee River flows at Balranald are currently about 2,000 ML/day and expected to continue receding in the coming week.

At Euston Weir, the pool level is currently about 45 cm below Full Supply Level (25 July). The weir pool level is being gradually raised over the coming days, subject to continuing maintenance works on the navigable pass, but is expected to remain below the full supply level. The release from Euston Weir is about 6,400 ML/day and this flow is expected to remain fairly steady during the coming week before higher flows arrive from upstream.

At Mildura Weir, the pool returned to full supply level last weekend after the weir was reinstated, and flows are expected to recede slightly during the coming week.

Menindee Lakes' storage increased by 2 GL during the week to 1,256 GL (73% capacity). The release, measured at Weir 32, is currently about 270 ML/day. Downstream at Burtundy, the recorded flow of 450 ML/day is much higher than the expected flow of about 250 ML/day and this possible gauging error is being investigated.

At Lake Victoria, the storage volume increased by 6 GL to 602 GL (89% capacity). As flow forecasts indicate that there is sufficient water in-transit to fill the lake at a later date, the flow to South Australia will be increased to 8,000 ML/day over the coming weekend. These higher flows aim to gradually lower the lake level over the coming weeks prior to refilling later in the spring.

The 5-day average water level in Lake Alexandrina increased to 0.66 m AHD during the week. Barrage gates at Goolwa and Mundoo were temporarily closed last weekend to help reduce reverse flows of seawater into the Lower Lakes during periods of strong winds and high swells. In the coming week, releases through the barrages totalling about 2,000 ML/day are being targeted.

Local rain has helped to reduce the salinity in Lake Albert to 2,750 EC units. This is one of the lowest readings at this gauge since October 2007.

For media inquiries contact the Media Officer on 02 6279 0141

DAVID DREVERMAN
Executive Director, River Management



Water in Storage

Week ending Wednesday 24 Jul 2013

| 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 | 483.92 | 3 721 | 96% | 71 | 3 650 | +56 |
| Hume Reservoir | 192.00 | 3 005 | 187.87 | 2 241 | 75% | 23 | 2 218 | +202 |
| Lake Victoria | 27.00 | 677 | 26.38 | 602 | 89% | 100 | 502 | +6 |
| Menindee Lakes | | 1 731* | | 1 256 | 73% | (480 #) | 776 | +2 |
| Total | | 9 269 | | 7 820 | 84% | -- | 7 146 | +267 |
| Total Active MDBA Storage | | | | | | | 83% ^ | |

Major State Storages

| | | | | | | |
|----------------------|-------|-------|-----|-----|-------|-----|
| Burrinjuck Reservoir | 1 026 | 466 | 45% | 3 | 463 | +23 |
| Blowering Reservoir | 1 631 | 1 279 | 78% | 24 | 1 255 | +37 |
| Eildon Reservoir | 3 334 | 2 461 | 74% | 100 | 2 361 | +99 |

* 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 23 Jul 2013

| Storage | Active Storage (GL) | Weekly Change (GL) | Diversions (GL) | This Week | From 1 May 2013 |
|------------------------|---------------------|--------------------|------------------|-----------|-----------------|
| Lake Eucumbene - Total | 1 443 | n/a | Snowy-Murray | +29 | 398 |
| Snowy-Murray Component | 573 | n/a | Tooma-Tumut | +10 | 68 |
| Target Storage | 1 170 | | Net Diversion | 19 | 330 |
| | | | Murray 1 Release | +46 | 468 |

Major Diversions from Murray and Lower Darling (GL) *

| New South Wales | This Week | From 1 July 2013 | Victoria | This Week | From 1 July 2013 |
|---------------------------|------------|------------------|---------------------------------|-----------|------------------|
| Murray Irrig. Ltd (Net) | 0.0 | 0 | Yarrowonga Main Channel (net) | 0 | 0 |
| Wakool Sys Allowance | -0.4 | -1 | Torrumbarry System + Nyah (net) | 1 | 3 |
| Western Murray Irrigation | 0.0 | 0 | Sunraysia Pumped Districts | 0.1 | 0 |
| Licensed Pumps | 0.4 | 1 | Licensed pumps - GMW (Nyah+u/s) | 0 | 1 |
| Lower Darling | 0.0 | 0 | Licensed pumps - LMW | 0.9 | 3 |
| TOTAL | 0.0 | 0 | TOTAL | 2 | 7 |

* 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 commencement of unregulated flows.

| | | |
|------------------------|---------|----------------|
| Entitlement this month | 108.5 * | |
| Flow this week | 31.3 | (4 500 ML/day) |
| Flow so far this month | 91.0 | |
| Flow last month | 117.0 | |

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

| | Current | Average over the last week | Average since 1 August 2012 |
|-------------------------|---------|----------------------------|-----------------------------|
| Swan Hill | 100 | 100 | 110 |
| Euston | 140 | 120 | 130 |
| Red Cliffs | 140 | 150 | 160 |
| Merbein | 170 | 200 | 170 |
| Burtundy (Darling) | - | - | - |
| Lock 9 | 240 | 240 | 260 |
| Lake Victoria | 350 | 340 | 280 |
| Berri | 510 | 510 | 340 |
| Waikerie | 570 | 580 | 360 |
| Morgan | 610 | 590 | 380 |
| Mannum | 520 | 520 | 380 |
| Murray Bridge | 580 | 570 | 390 |
| Milang (Lake Alex.) | 630 | 630 | 470 |
| Poltalloch (Lake Alex.) | 580 | 580 | 410 |
| Meningie (Lake Alb.) | 2 750 | 2 780 | 3 410 |
| Goolwa Barrages | 6 770 | 6 200 | 1 650 |



River Levels and Flows

Week ending Wednesday 24 Jul 2013

| 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 | - | - | - | 9 670 | F | 9 430 | 6 950 |
| Jingellic | 4.0 | 3.23 | 209.75 | 19 890 | F | 19 900 | 9 150 |
| Tallandoon (Mitta Mitta River) | 4.2 | 2.62 | 219.51 | 5 010 | F | 4 150 | 850 |
| Heywoods | 5.5 | 1.21 | 154.84 | 600 | S | 600 | 600 |
| Doctors Point | 5.5 | 2.32 | 150.79 | 7 170 | F | 6 890 | 1 840 |
| Albury | 4.3 | 1.33 | 148.77 | - | - | - | - |
| Corowa | 3.8 | 2.29 | 128.31 | 9 500 | R | 6 260 | 1 880 |
| Yarrawonga Weir (d/s) | 6.4 | 2.95 | 117.99 | 21 180 | R | 10 300 | 2 950 |
| Tocumwal | 6.4 | 2.71 | 106.55 | 12 690 | R | 6 780 | 2 810 |
| Torrumbarry Weir (d/s) | 7.3 | 1.54 | 80.09 | 4 120 | R | 3 600 | 2 950 |
| Swan Hill | 4.5 | 0.88 | 63.80 | 3 560 | R | 3 110 | 3 590 |
| Wakool Junction | 8.8 | 2.25 | 51.37 | 4 510 | S | 4 630 | 5 530 |
| Euston Weir (d/s) | 8.8 | 1.44 | 43.28 | 6 430 | S | 6 260 | 7 040 |
| Mildura Weir (d/s) | - | - | - | - | - | - | - |
| Wentworth Weir (d/s) | 7.3 | 3.08 | 27.84 | 6 990 | R | 6 210 | 6 650 |
| Rufus Junction | - | 3.00 | 19.93 | 3 750 | F | 3 900 | 2 880 |
| Blanchetown (Lock 1 d/s) | - | 0.73 | - | 3 680 | R | 3 310 | 2 510 |
| Tributaries | | | | | | | |
| Kiewa at Bandiana | 2.7 | 2.86 | 156.09 | 5 020 | F | 4 820 | 1 470 |
| Ovens at Wangaratta | 11.9 | 11.91 | 149.59 | 20 610 | F | 16 680 | 2 440 |
| Goulburn at McCoys Bridge | 9.0 | 2.78 | 94.20 | 3 410 | R | 1 440 | 640 |
| Edward at Stevens Weir (d/s) | - | 1.08 | 80.85 | 830 | F | 590 | 470 |
| Edward at Liewah | - | 1.55 | 56.93 | 900 | F | 1 160 | 1 520 |
| Wakool at Stoney Crossing | - | 1.30 | 54.79 | 220 | F | 240 | 250 |
| Murrumbidgee at Balranald | 5.0 | 2.46 | 58.42 | 2 040 | F | 2 120 | 1 550 |
| Barwon at Mungindi | - | 3.42 | - | 550 | F | 660 | 970 |
| Darling at Bourke | - | 4.21 | - | 910 | R | 850 | 880 |
| Darling at Burtundy Rocks | - | - | - | 450 | S | 440 | 460 |

| | | |
|---|--------|-------|
| Natural Inflow to Hume (i.e. Pre Dartmouth & Snowy Mountains scheme) | 34 910 | 8 140 |
|---|--------|-------|

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 | -0.27 | - | No. 7 Rufus River | 22.10 | -0.01 | +0.68 |
| No. 26 Torrumbarry | 86.05 | +0.01 | - | No. 6 Murtho | 19.25 | +0.03 | +0.01 |
| No. 15 Euston | 47.60 | -0.52 | - | No. 5 Renmark | 16.30 | -0.01 | +0.15 |
| No. 11 Mildura | 34.40 | +0.03 | +0.19 | No. 4 Bookpurnong | 13.20 | +0.03 | +0.49 |
| No. 10 Wentworth | 30.80 | +0.08 | +0.44 | No. 3 Overland Corner | 9.80 | +0.05 | +0.24 |
| No. 9 Kulnine | 27.40 | +0.19 | +0.21 | No. 2 Waikerie | 6.10 | +0.07 | +0.16 |
| No. 8 Wangumma | 24.60 | +0.24 | -0.02 | 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) | 0.66 |
|--|------|

Barrages

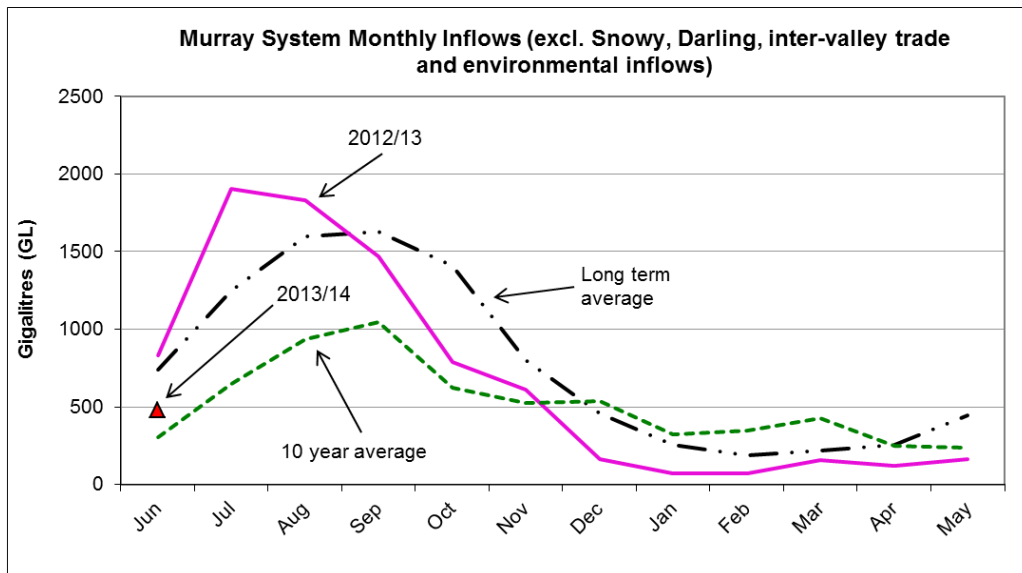
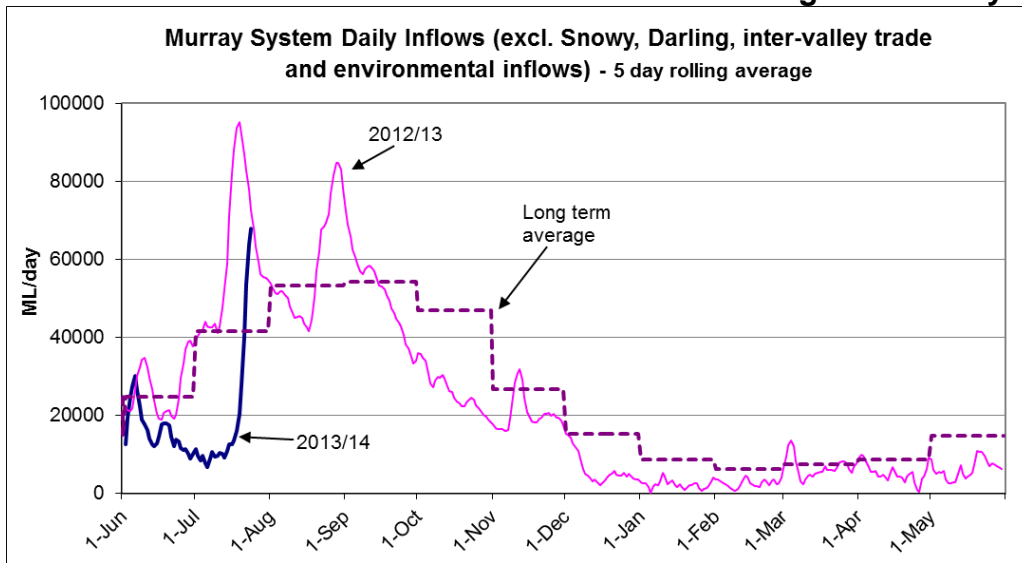
Fishways at Barrages

| | Openings | Level (m AHD) | No. Open | Rock Ramp | Vertical Slot |
|----------------|--------------|---------------|------------|-----------|---------------|
| Goolwa | 128 openings | 0.73 | 4 | - | Open |
| Mundoo | 26 openings | 0.69 | 1 | - | - |
| Boundary Creek | 6 openings | - | 0.1 | - | - |
| Ewe Island | 111 gates | - | All closed | - | - |
| Tauwichee | 322 gates | 0.72 | 4 | Open | Open |

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



Week ending Wednesday 24 Jul 2013



State Allocations (as at 24 Jul 2013)

NSW - Murray Valley

| | |
|------------------|-----|
| High security | 97% |
| General security | 38% |

Victorian - Murray Valley

| | |
|------------------|-----|
| High reliability | 42% |
| Low reliability | 0% |

NSW - Murrumbidgee Valley

| | |
|------------------|-----|
| High security | 95% |
| General security | 18% |

Victorian - Goulburn Valley

| | |
|------------------|-----|
| High reliability | 54% |
| 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>