

REPORT FOR THE WEEK ENDING

Wednesday, 28 September 2005

Our Ref : M2005/00066/prs
Trim Ref : 05/16400

29 September, 2005



Rainfall and inflows

Rainfall across the Basin was patchy this week, with the highest falls occurring in central NSW and along the River Murray in South Australia (*see attached map*). However on the evening of 28 September, heavy rainfall was recorded across the Ovens, Kiewa, Mitta Mitta and Murray catchments. This rainfall is expected to generate significant inflow to the upper storages over the coming week and the Bureau of Meteorology has released a moderate flood warning for the River Murray upstream of Hume Reservoir and a minor flood warning for the Mitta Mitta River upstream of Dartmouth Reservoir (<http://www.bom.gov.au/hydro/flood/vic>).

River Murray operations

Release from Dartmouth Dam remains at the minimum level of 200 ML/day and inflows to this storage over the past week have averaged 5 000 ML/day. Storage in Dartmouth Reservoir is now 2 273 GL (58% capacity). At Hume Reservoir, the storage level increased by 111 GL to 2 385 GL (78% capacity). Prior to this most recent rain, there was about a 20% chance of filling Hume Reservoir this season and an extremely low possibility of filling Dartmouth Reservoir. This will be reviewed next week once the magnitude of this latest inflow event is known.

The flow downstream of Yarrawonga Weir was temporarily reduced to 8 500 ML/day, but has since been increased to 12 800 ML/day in response to local rain and a reduction in irrigation diversions. At Stevens Weir, the flow in the Edward River is currently 3 300 ML/day and the Wakool River at Stoney Crossing peaked during the week at about 1 400 ML/day.

Inflow from the Murrumbidgee River temporarily increased to about 2 000 ML/day, which is expected to increase the flow downstream of Euston Weir to about 14 000 ML/day this weekend. Lake Victoria storage has increased to 655 GL (97%) and is expected to fill over the coming weeks.

As indicated last week, South Australia is currently receiving above entitlement flow. To maximise the environmental benefits of this higher flow, the level of several weir pools along the Lower Murray are being raised to 'boost' river levels as much as possible to water drought stressed River Red Gums and other floodplain vegetation. On September 29, Lock 1 upstream pool was 8 cm above Full Supply Level (FSL), Lock 4 was 22 cm above FSL, Lock 5 was 39 cm above FSL, Lock 6 was 15 cm above FSL and Lock 8 was 38 cm above FSL. Further increases to weir pool levels are planned for Locks 5 and 8.

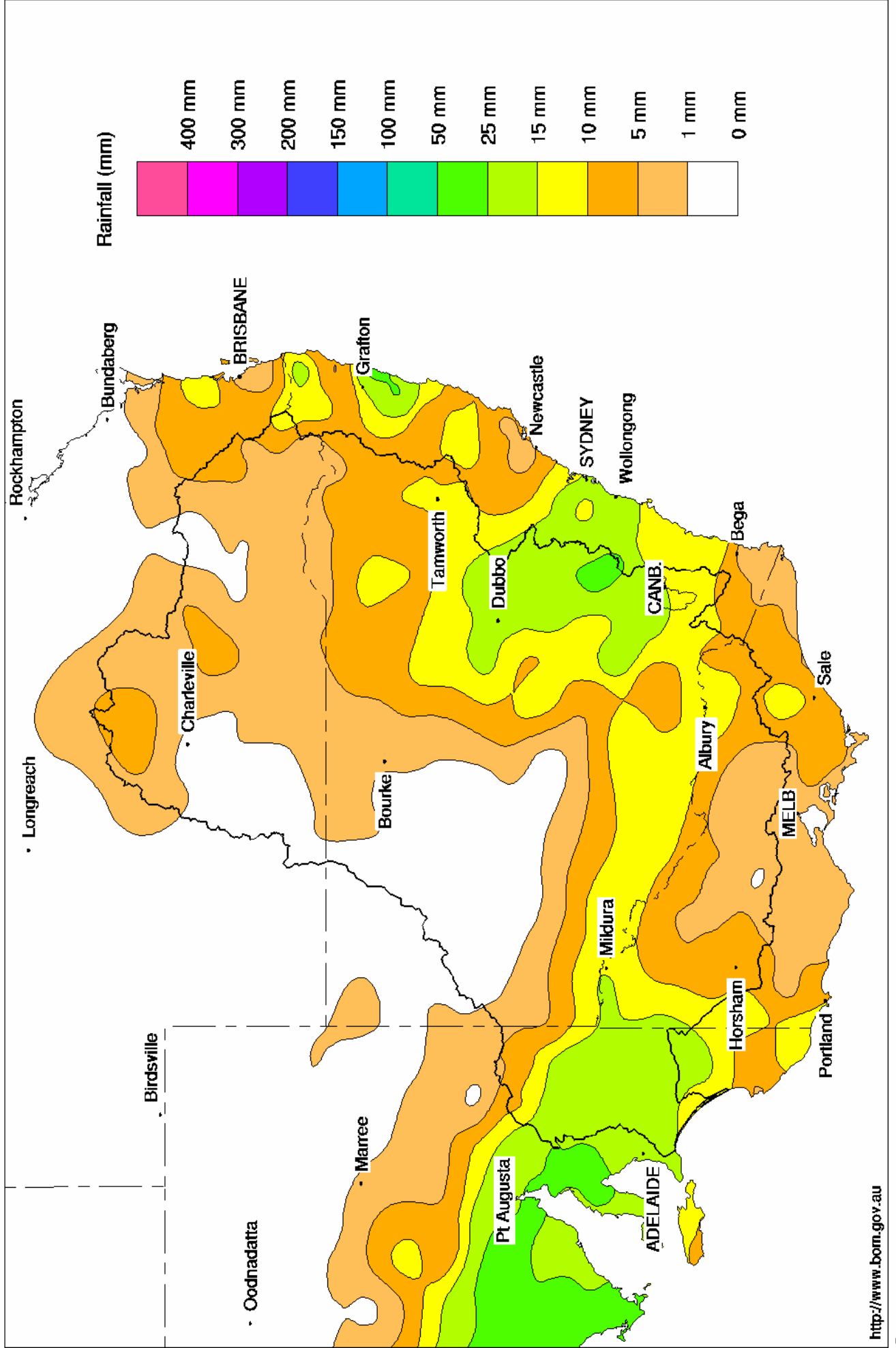
The level of the Lower Lakes has gradually increased over the past week and it is currently 0.83 m AHD. Several barrage gates were closed during the week in order to gradually raise the lake level towards 0.85 m AHD, however gates remain open at Goolwa, Ewe Island, Boundary Creek and Tauwichee Barrages. Since the opening of the Barrages on 21 July, it is estimated that approximately 230 GL has flowed from the Lower Lakes into the Coorong and Murray Mouth.

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Murray Darling Rainfall Analysis (mm) Week Ending 28th September 2005

Product of the National Climate Centre



Water in Storage

| MDBC Storages | Full Supply Level (m AHD) | Full Supply Volume (GL) | Current Storage Level (m AHD) | Current Storage | | Dead Storage (GL) | MDBC Active Storage (GL) | Change in Storage for the week (GL) |
|---------------------|------------------------------|----------------------------|----------------------------------|-----------------|------------|----------------------|-----------------------------|--|
| | | | | (GL) | % | | | |
| Dartmouth Reservoir | 486.00 | 3 906 | 457.17 | 2 273 | 58% | 80 | 2 193 | +32 |
| Hume Reservoir | 192.00 | 3 038 | 188.54 | 2 385 | 78% | 30 | 2 355 | +111 |
| Lake Victoria | 27.00 | 677 | 26.82 | 655 | 97% | 100 | 555 | +14 |
| Menindee Lakes | | 1 731 * | | 481 | 28% | (- -) # | 0 | -1 |
| Total | | 9 352 | | 5 794 | 62% | -- | 5 103 | +156 |

* Menindee surcharge capacity 2050 GL % of Total Active MDBC Storage = 60%

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

Major State Storages

| | | | | | | | |
|----------------------|-------|--|-------|-----|-----|-------|-----|
| Burrinjuck Reservoir | 1 026 | | 591 | 58% | 3 | 588 | +23 |
| Blowering Reservoir | 1 631 | | 911 | 56% | 24 | 887 | +25 |
| Eildon Reservoir | 3 390 | | 1 509 | 45% | 100 | 1 409 | +45 |

Snowy Mountains Scheme

Snowy diversions for week ending 27-Sep-2005

| Storage | Active storage (GL) | Weekly change (GL) | Diversions (GL) | This week | From 1 May 2005 |
|------------------------|------------------------|-----------------------|------------------|-----------|-----------------|
| Lake Eucumbene - Total | 2 154 | +26 | Snowy-Murray | +5 | 326 |
| Snowy-Murray Component | 1 001 | +28 | Tooma-Tumut | +10 | 155 |
| Target Storage | 1 240 | | Nett Diversion | -4.7 | 171 |
| | | | Murray 1 Release | +25 | 514 |

Major Diversions from Murray and Lower Darling (GL)

| New South Wales | This week | From 1 July 2005 |
|-------------------------|-------------|------------------|
| Murray Irrig. Ltd (Net) | 24.6 | 110.0 |
| Wakool System loss | 0.0 | 9.3 |
| Western Murray Irrig. | 0.3 | 1.4 |
| Licensed Pumps | 11.8 | 37.4 |
| Lower Darling | 0.4 | 10.1 |
| TOTAL | 37.1 | 168.2 |

| Victoria | This week | From 1 July 2005 |
|---------------------------------|-------------|------------------|
| Yarrowonga Main Channel (net) | 3.1 | 12 |
| Torrumbarry System + Nyah (net) | 21.1 | 113 |
| Sunraysia Pumped Districts | 2.0 | 7 |
| Licensed pumps - GMW (Nyah+u/s) | 0.5 | 2 |
| Licensed pumps - SRW | 4.1 | 34 |
| TOTAL | 30.7 | 167 |

Flow to South Australia (GL)

| | | |
|------------------------|------|-----------------|
| Entitlement this month | 135 | |
| Flow this week | 72.2 | (10 300 ML/day) |
| Flow so far this month | 220 | |
| Flow last month | 124 | |

Salinity (EC)

(microsiemens/cm @ 25° C)

| | Current | Average over the last week | Average since 1 August 2005 |
|-------------------------|---------|----------------------------|-----------------------------|
| Swan Hill | 80 | 80 | 110 |
| Euston | 110 | 120 | 140 |
| Red Cliffs | 120 | 140 | 150 |
| Merbein | 150 | 120 | 110 |
| Burtundy (Darling) | 530 | 540 | 530 |
| Lock 9 | 150 | 140 | 150 |
| Lake Victoria | 170 | 180 | 190 |
| Berri | 210 | 220 | 280 |
| Waikerie | - | 340 | 440 |
| Morgan | 340 | 360 | 440 |
| Mannum | 500 | 500 | 470 |
| Murray Bridge | 470 | 480 | 460 |
| Milang (Lake Alex.) | 1 380 | 1 380 | 1 390 |
| Poltalloch (Lake Alex.) | 1 080 | 1 090 | 1 030 |
| Meningie (Lake Alb.) | 2 160 | 2 170 | 2 070 |
| Goolwa Barrages | 1 550 | 1 610 | 2 100 |



River Levels and Flows

| | 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) | | | | |
| River Murray | | | | | | | |
| Khancoban | - | - | - | 6 420 | R | 5 730 | 5 710 |
| Jingellic | 4.0 | 2.58 | 209.10 | 12 960 | R | 12 720 | 17 590 |
| Tallandoon (Mitta Mitta River) | 4.2 | 1.88 | 218.77 | 2 250 | F | 2 520 | 3 710 |
| Heywoods | 5.5 | 1.24 | 154.87 | 700 | F | 1 630 | 600 |
| Doctors Point | 5.5 | 2.02 | 150.49 | 4 150 | F | 4 520 | 5 090 |
| Albury | 4.3 | 1.07 | 148.51 | - | - | - | - |
| Corowa | 7.0 | 1.45 | 127.47 | 4 860 | F | 4 560 | 6 170 |
| Yarrowonga Weir (d/s) | 6.4 | 1.69 | 116.73 | 9 500 | R | 9 310 | 18 060 |
| Tocumwal | 6.4 | 2.12 | 105.96 | 9 080 | F | 10 820 | 20 260 |
| Torrumbarry Weir (d/s) | 7.3 | 2.83 | 81.38 | 8 780 | F | 9 250 | 10 620 |
| Swan Hill | 4.5 | 1.69 | 64.61 | 9 040 | R | 9 320 | 10 300 |
| Wakool Junction | 8.8 | - | - | 12 590 | F | 13 130 | 15 040 |
| Euston Weir (d/s) | 8.8 | 2.35 | 44.19 | 12 810 | R | 12 850 | 15 480 |
| Mildura Weir (d/s) | - | - | 31.30 | 11 090 | F | 11 580 | 18 020 |
| Wentworth Weir (d/s) | 7.3 | 3.32 | 28.08 | 10 830 | R | 10 830 | 13 050 |
| Rufus Junction | - | 3.90 | 20.83 | 9 080 | F | 9 610 | 8 540 |
| Blanchetown (Lock 1 d/s) | - | - | - | 10 300 | R | 8 440 | 7 670 |
| Tributaries | | | | | | | |
| Kiewa at Bandiana | 2.7 | 2.43 | 155.66 | 3 960 | R | 3 280 | 6 760 |
| Ovens at Wangaratta | 11.9 | 9.77 | 147.45 | 6 219 | F | 7 240 | 12 910 |
| Goulburn at McCoys Bridge | 9.0 | 1.40 | 92.82 | 755 | F | 880 | 1 920 |
| Edward at Stevens Weir (d/s) | - | - | - | 3 310 | F | 3 370 | 3 080 |
| Edward at Liewah | - | 2.82 | 58.20 | 2 370 | F | 2 520 | 3 060 |
| Wakool at Stoney Crossing | - | 0.79 | 55.28 | 1 380 | S | 1 320 | 860 |
| Murrumbidgee at Balranald | 5.0 | 2.24 | 58.20 | 1 680 | F | 990 | 240 |
| Barwon at Mungindi | - | 3.23 | - | 90 | S | 80 | 30 |
| Darling at Bourke | - | 4.10 | - | 371 | R | 240 | 250 |
| Darling at Burtundy Rocks | - | 0.70 | - | 76 | S | 90 | 100 |

| | | |
|---|--------|--------|
| Natural Inflow to Hume (ie pre Dartmouth & Snowy Mountains scheme) | 21 880 | 35 500 |
|---|--------|--------|

Weirs and Locks

Pool levels above or below design level

| Murray | FSL (m AHD) | u/s | d/s | | FSL (m AHD) | u/s | d/s |
|-------------------|-------------|-------|-------|----------------------|-------------|-------|-------|
| Yarrowonga | 124.90 | +0.03 | - | No. 7 Rufus River | 22.10 | +0.17 | +1.60 |
| No 26 Torrumbarry | 86.05 | -0.01 | - | No. 6 Murtho | 19.25 | +0.14 | +0.59 |
| No. 15 Euston | 47.60 | -0.01 | - | No. 5 Renmark | 16.30 | +0.39 | +0.52 |
| No. 11 Mildura | 34.40 | +0.02 | +0.50 | No. 4 Bookpurnong | 13.20 | +0.24 | +1.24 |
| No. 10 Wentworth | 30.80 | -0.02 | +0.68 | No.3 Overland Corner | 9.80 | +0.08 | +0.49 |
| No. 9 Kulnine | 27.40 | +0.01 | +0.49 | No. 2 Waikerie | 6.10 | +0.07 | +0.45 |
| No. 8 Wangumma | 24.60 | +0.37 | +0.50 | No 1. Blanchetown | 3.20 | +0.09 | +0.13 |

| Murrumbidgee | FSL (m AHD) | relation to FSL | d/s gauge ht. | | Flow (ML/day) |
|---------------------|-------------|-----------------|---------------|---------|---------------|
| | | | local (m) | (m AHD) | |
| No. 7 Maude | 75.40 | -0.29 | 1.04 | 70.39 | 882 |
| No. 5 Redbank | 66.90 | +0.11 | 0.31 | 61.61 | 426 |

Lower Lakes

FSL = 0.75 m AHD

| | (m AHD) |
|--|---------|
| Lake Alexandrina average level for the past 5 days | 0.83 |

Barrages

| | Openings | Level (m AHD) | Status |
|----------------|--------------|---------------|------------|
| Goolwa | 128 openings | 0.98 | 3 |
| Mundoo | 26 openings | 0.90 | All closed |
| Boundary Creek | 6 openings | - | 1 |
| Ewe Island | 111 gates | - | 1 |
| Tauwichee | 322 gates | 0.96 | 4 |



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