# REPORT FOR THE WEEK ENDING

# Wednesday, 16 April 2003

*Our Ref : MDBC:269 :ng* **17 April, 2003**

River Murray Water
A Business Unit of MDBC

***Rain Blankets Basin***

Rain was recorded across virtually the entire Murray-Darling Basin this week. Falls ranged from very light (1-5 mm) in the south-west, up to falls in excess of 130 mm in the very north of the basin. The catchments of Dartmouth and Hume Dams received from 10 to 50 mm with heavier falls of up to 100 mm recorded in the upper Kiewa, Ovens and Goulburn River catchments.

Due to the very dry state of the upper Murray catchments only small increases in streamflows have been observed. Flow in the Ovens River at Wangaratta increased from about 50 to 900 ML/day – a level not seen since October 2002 - and is expected to begin receding early next week.

***System Operation***

Reduced irrigation demands, evaporation rates and river losses have permitted significant reductions in regulated releases. Release from Dartmouth Dam, currently 700 ML/day, will be reduced to 600 ML/day early next week and remain at this rate at least until after Easter. Release from Hume Dam was reduced from 9 000 to 4 000 ML/day as measured at Albury/Wodonga. This may be increased next week if dry conditions prevail and irrigation demands again rise. Release from Yarrawonga Weir was reduced from 5 800 to 4 500 ML/day and is expected to remain at about this rate next week if conditions remain dry.

Release from Torrumbarry Weir was increased from 2 800 to 3 800 ML/day after irrigation diversions reduced in response to the rain. It is expected that release will gradually reduce to about 2 400 ML/day later in April if conditions remain dry. River levels at Swan Hill, currently 0.80 m gauge height are expected to rise to about 0.85 m over Easter before gradually falling towards the minimum target level of 0.60 m in late April.

***Water Quality***

Moderate increases in turbidity levels have been reported in the bushfire affected areas as the recent rain brings ash and sediment into streams. However, turbidity has generally been much less than that observed after heavy rain fell in the upper Ovens River catchment in March.

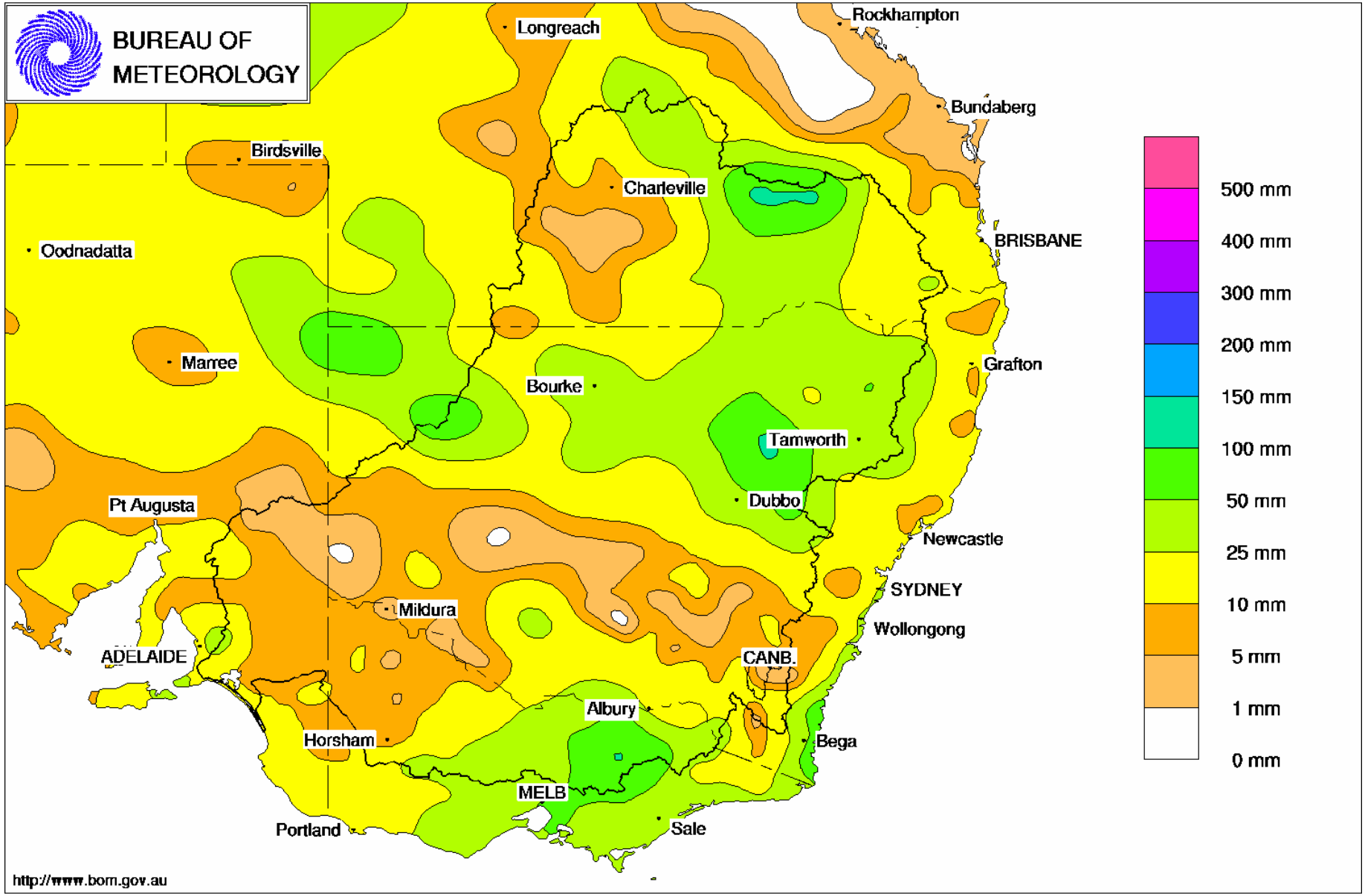
Algal counts across the River Murray system are generally steady with high alert levels persisting in Hume Reservoir, Lake Mulwala and the lower Darling River. It can be expected that the cooler and windier conditions that have occurred recently will lead to gradual reductions in cell counts over the coming weeks.

Salinity levels remain steady throughout most of the River Murray system. River salinity downstream of Torrumbarry remains low compared to previous seasons. However at Lake Wetherell in the Menindee Lakes scheme, water salinity has increased as the first of the Darling inflows reach the Lake. Salinity at the Main Weir is currently about 1 900 EC, but is currently expected to increase to about 2 500 EC once the higher salinity water fully mixes. The salinity at Wilcannia has now receded to about 700 EC. The NSW Department of Sustainable Natural Resources is monitoring salinity in Lake Wetherell closely, and further information will be provided as it becomes available.

DAVID DOLE
General Manager

# Murray Darling Rainfall Analysis (mm) Week Ending 16th April 2003

Product of the National Climate Centre

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**Week ending Wednesday 16 Apr 2003**

## Water in Storage

| MDBC Storages | Full Supply Level | Full Supply Volume | Current Storage Level | Current Storage | | Dead Storage | Active Storage | Change in Storage for the week |
|---|---|---|---|---|---|---|---|---|
| | (m AHD) | (GL) | (m AHD) | (GL) | % | (GL) | (GL) | (GL) |
| Dartmouth Reservoir | 486.00 | 3 906 | 428.06 | 1 135 | 29% | 80 | 1 055 | -4 |
| Hume Reservoir | 192.00 | 3 038 | 168.43 | 196 | 6% | 30 | 166 | +4 |
| Lake Victoria | 27.00 | 680 | 23.26 | 288 | 42% | 100 | 188 | -21 |
| Menindee Lakes | | 1 682 * | | 108 | 6% | 640 # | 0 | +46 |
| **Total** | | **9 306** | | **1 726** | **19%** | **850** | **1 408** | **+24** |

* Menindee surcharge capacity 1999 GL

% of Total Active MDBC Storage = **17%**

\# NSW Menindee Lakes Reserve

## Major State Storages

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Burrinjuck Reservoir | 1 026 | | 48 | 5% | 3 | 45 | -2 |
| Blowering Reservoir | 1 631 | | 63 | 4% | 24 | 39 | +12 |
| Eildon Reservoir | 3 390 | | 309 | 9% | 100 | 209 | -2 |

## Snowy Mountains Scheme

Snowy diversions for week ending 15-Apr-2003

| Storage (GL) | Current storage | Weekly change | Diversion | This week | From 1 May 2002 |
|---|---|---|---|---|---|
| Lake Eucumbene - Total | 2 241 | -43 | Snowy-Murray | +42 | 870 |
| Snowy-Murray Component | 1 009 | - | Tooma-Tumut | +0 | 205 |
| Target Storage | 1 340 | | Nett Diversion | 41.5 | 665 |
| | | | Murray 1 Release | +45 | 1 091 |

## Major Diversions from Murray and Lower Darling (GL)

| New South Wales | This week | From 1 July 2002 |
|---|---|---|
| Murray Irrig. Ltd (Net) | 11.9 | 502.5 |
| Wakool System loss | 2.1 | 50.1 |
| Western Murray Irrig. | 0.5 | 27.7 |
| Licensed Pumps | 3.2 | 191.4 |
| Lower Darling | 0.9 | 119.5 |
| **TOTAL** | **18.5** | **891.2** |

| Victoria | This week | From 1 July 2002 |
|---|---|---|
| Yarrawonga Main Channel (net) | 6.2 | 458 |
| Torrumbarry System + Nyah (net) | 10.2 | 777 |
| Sunraysia Pumped Districts | 3.1 | 148 |
| Licensed pumps - GMW (Nyah+u/s) | 1.0 | 69 |
| Licensed pumps - SRW | 3.4 | 174 |
| **TOTAL** | **23.9** | **1 627** |

## Flow to South Australia (GL)

| | |
|---|---|
| Entitlement this month | 135 |
| Flow this week | 31.8 |
| Flow so far this month | 72 |
| Flow last month | 186 |

(4 500 ML/day)

## Salinity (EC)

**(microsiemens/cm @ 25° C)**

| | Current | Average over the last week | Average since 1 August 2002 |
|---|---|---|---|
| Swan Hill | 70 | 70 | 80 |
| Euston | 100 | 110 | 120 |
| Red Cliffs | 160 | 160 | 130 |
| Merbein | 190 | 190 | 140 |
| Burtundy (Darling) | 1 380 | 1 360 | 1 150 |
| Lock 9 | 140 | 130 | 170 |
| Lake Victoria | 280 | 270 | 300 |
| Berri | 280 | 300 | 330 |
| Waikerie | 330 | 340 | 400 |
| Morgan | 390 | 380 | 490 |
| Mannum | 380 | 380 | 570 |
| Murray Bridge | 440 | 450 | 650 |
| Milang (Lake Alex.) | 1 170 | 1 200 | 1 160 |
| Poltalloch (Lake Alex.) | 1 160 | 1 130 | 1 160 |
| Meningie (Lake Alb.) | 1 800 | 1 750 | 1 620 |
| Goolwa Barrages | 4 290 | 2 930 | 3 240 |

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## River Levels and Flows

| River Murray | Minor Flood stage (m) | Gauge height local (m) | Gauge height (m AHD) | Flow (ML/day) | Trend | Average flow this week (ML/day) | Average flow last week (ML/day) |
|---|---|---|---|---|---|---|---|
| Khancoban | - | - | - | 6 100 | F | 6 060 | 6 160 |
| Jingellic | 4.0 | 1.95 | 208.47 | 6 980 | R | 6 530 | 6 560 |
| Tallandoon ( Mitta Mitta River ) | 4.2 | 1.51 | 218.40 | 1 010 | F | 1 180 | 1 170 |
| Heywoods | 5.5 | 1.77 | 155.40 | 3 540 | F | 6 770 | 9 980 |
| Doctors Point | 5.5 | 2.01 | 150.48 | 3 930 | F | 6 620 | 9 450 |
| Albury | 4.3 | 1.04 | 148.48 | - | - | - | - |
| Corowa | 7.0 | 1.56 | 127.58 | 5 910 | F | 8 740 | 10 970 |
| Yarrawonga Weir (d/s) | 6.4 | 0.84 | 115.88 | 4 220 | F | 5 150 | 5 830 |
| Tocumwal | 6.4 | 1.41 | 105.25 | 4 850 | F | 5 400 | 5 740 |
| Torrumbarry Weir (d/s) | 7.3 | 1.45 | 80.00 | 3 820 | R | 3 400 | 2 920 |
| Swan Hill | 4.5 | 0.80 | 63.72 | 3 050 | R | 2 750 | 2 920 |
| Wakool Junction | 8.8 | 1.81 | 50.93 | 3 210 | R | 3 100 | 3 370 |
| Euston Weir (d/s) | 8.8 | 0.74 | 42.58 | 3 090 | F | 3 200 | 3 450 |
| Mildura Weir (d/s) | | - | 30.82 | 2 820 | F | 2 870 | 2 840 |
| Wentworth Weir (d/s) | 7.3 | 2.93 | 27.69 | 1 900 | F | 2 120 | 2 040 |
| Rufus Junction | - | 3.06 | 19.99 | 4 250 | S | 4 250 | 4 130 |
| Blanchetown (Lock 1 d/s) | - | - | - | 3 270 | S | 3 250 | 3 130 |
| **Tributaries** | | | | | | | |
| Kiewa at Bandiana | 2.7 | 0.87 | 154.10 | 470 | R | 150 | 80 |
| Ovens at Wangaratta | 11.9 | 8.04 | 145.72 | 880 | R | 370 | 70 |
| Goulburn at McCoys Bridge | 9.0 | 1.40 | 92.82 | 741 | R | 520 | 400 |
| Edward at Stevens Weir (d/s) | - | - | - | 440 | F | 290 | 150 |
| Edward at Liewah | - | 0.58 | 55.96 | 240 | F | 280 | 240 |
| Wakool at Stoney Crossing | - | 0.42 | 54.91 | 325 | S | 310 | 290 |
| Murrumbidgee at Balranald | 5.0 | 0.58 | 56.54 | 244 | S | 240 | 210 |
| Barwon at Mungindi | - | 3.44 | - | 580 | F | 620 | 580 |
| Darling at Bourke | - | 4.18 | - | 840 | F | 810 | 970 |
| Darling at Burtundy Rocks | - | 0.69 | - | 90 | S | 100 | 90 |

| **Natural Inflow to Hume** (ie pre Dartmouth & Snowy Mountains scheme) | 1 000 | 550 |
|---|---|---|

## 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 |
|---|---|---|---|---|---|---|---|
| Yarrawonga | 124.90 | -0.04 | - | No. 7 Rufus River | 22.10 | +0.04 | +0.75 |
| No 26 Torrumbarry | 86.05 | +0.00 | - | No. 6 Murtho | 19.25 | +0.01 | +0.00 |
| No. 15 Euston | 47.60 | -0.01 | - | No. 5 Renmark | 16.30 | +0.01 | +0.10 |
| No. 11 Mildura | 34.40 | -0.01 | +0.02 | No. 4 Bookpurnong | 13.20 | +0.02 | +0.45 |
| No. 10 Wentworth | 30.80 | +0.01 | +0.29 | No.3 Overland Corner | 9.80 | +0.04 | +0.17 |
| No. 9 Kulnine | 27.40 | +0.17 | +0.03 | No. 2 Waikerie | 6.10 | +0.04 | +0.12 |
| No. 8 Wangumma | 24.60 | +0.05 | +0.03 | No 1. Blanchetown | 3.20 | +0.04 | -0.39 |

| Murrumbidgee | FSL (m AHD) | relation to FSL | d/s gauge ht. local (m) | d/s gauge ht. (m AHD) | Flow (ML/day) |
|---|---|---|---|---|---|
| No. 7 Maude | 75.40 | -1.02 | 0.6 | 69.95 | 296 |
| No. 5 Redbank | 66.90 | -0.87 | 0.18 | 61.48 | 296 |

## Barrages

**FSL = 0.75 m AHD**

| | Openings | Level | Status |
|---|---|---|---|
| Goolwa | 128 openings | 0.44 | All closed |
| Mundoo | 26 openings | 0.40 | All closed |
| Boundary Creek | 6 openings | - | All closed |
| Ewe Island | 111 gates | - | All closed |
| Tauwitchere | 322 gates | 0.40 | All closed |

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

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