



RIVER MURRAY WEEKLY REPORT

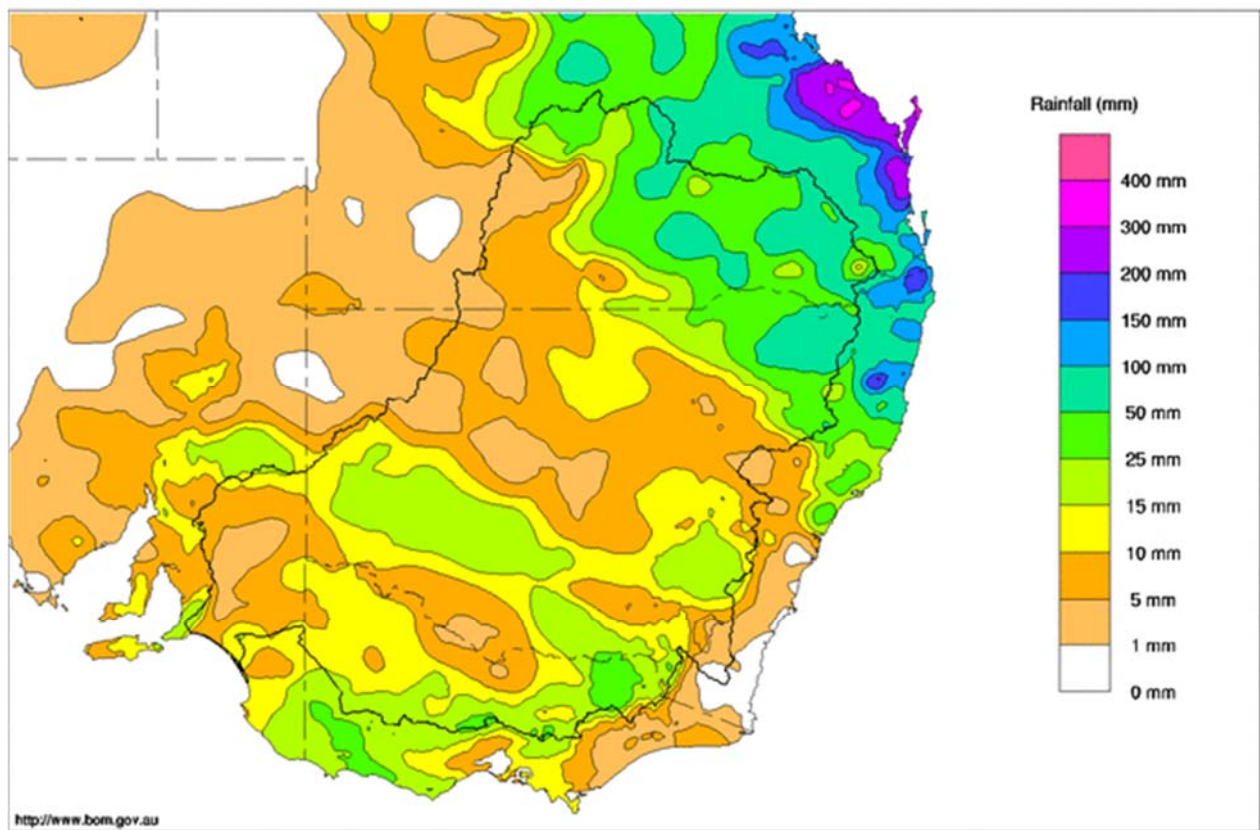
FOR THE WEEK ENDING WEDNESDAY, 18 OCTOBER 2017

Trim Ref: D17/40577

Rainfall and inflows

Small to moderate amounts of rain fell across almost the entire Murray-Darling Basin this week (see Map 1). The highest falls were recorded in southern Queensland, where 115 mm fell at Jondaryan and 74 mm at Mitchell. In northern NSW, there was 63 mm at Guyra and 61 mm at Glen Innes. In north-east Victoria, there was 59 mm at Rocky Valley near Falls Creek and 30 mm at Myrhee. In South Australia, isolated areas recorded 15 mm with everywhere else recording 10 mm or less.

Murray-Darling Rainfall Totals (mm) Week Ending 18th October 2017
Australian Bureau of Meteorology



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Map 1 - Murray-Darling Basin rainfall map week ending 18 October 2017 (Source: Bureau of Meteorology).

Streamflows across the southern Basin have receded after the rain earlier in the week. At Hinnomunjie, on the Mitta Mitta River upstream of Dartmouth Dam, the flow reached 8,600 ML/day but is now 2,200 ML/day. At Biggara on the River Murray upstream of Hume Dam, the flow has gradually receded from 1,600 ML/day a week ago to 1,060 ML/day. The flow at Bandiana, on the Kiewa River, averaged 3,700 ML/day during the week, while the flow in the Ovens River at Wangaratta receded from 4,000 to 2,570 ML/day. With more rain forecast in the coming days, streamflows are expected to increase.



River operations

- Small flow pulse from Dartmouth Reservoir this weekend
- Yarrowonga release steady at 15,000 ML/day
- Releases from Weir 32, at the Menindee Lakes, temporarily reduced to 1,000 ML/day

MDBA active storage has reduced a further 43 GL this week to 6,504 GL (76% active storage).

At **Dartmouth Reservoir**, the storage volume increased by 25 GL to 3,308 GL (86% capacity). A small flow pulse is planned for this weekend to freshen up the Mitta Mitta River between the dam and the confluence with Snowy Creek. The flow pulse will commence on Friday morning, 20 October, at Colemans gauge and will be lowered back to the minimum flow of 200 ML/day by early Monday morning, 23 October. The peak of the flow pulse will be 1,860 ML/day at Colemans gauge. At Tallandoon, if conditions remain dry, the flow is forecast to reach about 1,350 ML/day on Saturday 21 October but, with rain forecast, this flow is expected to be higher due to increased inflows downstream of the dam.

At **Hume Reservoir**, the storage declined by 35 GL this week to the current volume of 2,637 GL (88% capacity). During the week, the release from Hume dipped to 12,000 ML/day (see Photo 1) but has now increased to 17,500 ML/day as downstream demands increase and tributary inflows from the Kiewa River recede. With rain expected in the coming days, the release is likely to be reduced again in response to higher tributary inflows and demand suppression.



Photo 2 – The River Murray upstream of Albury (Photo courtesy: Hugo Bowman, MDBA).

The current level of Lake Mulwala is 124.71 m AHD, which is within the normal operating range. The release through **Yarrowonga Weir** has been steady this week at around 15,000 ML/day. Diversions through Mulwala Canal have averaged 4,200 ML/day for the week, while Yarrowonga Main Canal is diverting an average of 1,400 ML/day.

The higher flows downstream of Yarrowonga Weir are expected to continue until early December. These high flows are part of the current operating strategy which aims to, in addition to meeting downstream demands, transfer water to Lake Victoria at a time of year when the environment of Barmah-Millewa Forest can also benefit from low-level inundation (see Photo 2). To enhance this strategy, a portion of the higher flow at Yarrowonga is environmental water, with some being used within Barmah-Millewa Forest and the remainder intended for delivery to South Australia. The water being transferred to Lake Victoria is to supplement flow requirements in the lower Murray during peak demand periods.



Photo 2 – A small area of inundation near Steamer Plain in Barmah Forest (Photo courtesy: Irene Wegener, CEWO).

The flow at Toonalook on the **Edward River** has increased to 3,900 ML/day. This flow includes up to 2,100 ML/day from the River Murray via the Edward River and Gulpa Creek offtakes as well as return flows from Millewa Forest. At Stevens Weir, the flow is now 2,700 ML/day, which is close to the channel capacity downstream of the weir. The use of Edward Escape is being managed to keep the release from Stevens Weir close to the channel capacity.

The flow in the **Goulburn River** at McCoys Bridge has receded to below 1,000 ML/day and is currently 870 ML/day. Without further rainfall, the flow is expected to continue receding for the next 2–3 weeks towards 540 ML/day. The flow in the Campaspe River at Rochester has averaged 110 ML/day during the last week.

The pool level at **Torrumbarry Weir** has been steady at Full Supply Level (FSL) and National Channel is currently diverting 2,600 ML/day. The lock at Torrumbarry Weir will be temporarily closed from 8 November until the end of April next year. More information is provided in the attached media release. The flow downstream of Torrumbarry has been relatively steady in the range 5,900–7,300 ML/day during the week.

At Balranald on the **Murrumbidgee River**, the flow has been steady at around 1,050 ML/day, but is expected to increase to more than 3,000 ML/day in the next 1–2 weeks. This forecast increase in flow is due to reduced diversions following rainfall in the Murrumbidgee irrigation area last week.

At **Euston**, the weir pool level remains 30 cm above FSL and the release has reduced to 8,000 ML/day. The flow in the coming week is expected to be relatively steady. Flows at Mildura and Wentworth have also been reducing, and are expected to remain steady in the coming week or two.

At **Menindee Lakes**, the storage volume has reduced by 20 GL this week to 609 GL (35% capacity). The flow at Weir 32 for most of this week has been just under 1,800 ML/day. However, from today (18 October), the flow will be gradually reduced to 1,000 ML/day. This lower release is in response to the forecast improvements in tributary inflows downstream of Hume which will assist in meeting targets



at Lake Victoria. The flow at Weir 32 is expected to return to 1,800 ML/day within the next one to two weeks if no further improvements are forecasted.

At **Lake Victoria**, the storage volume decreased by 12 GL during the week to 624 GL (92% capacity). The storage volume is expected to rise slightly in the coming fortnight as higher flows from the Murray, Murrumbidgee and recent releases from Menindee arrive.

The flow into **South Australia** has reduced from 10,600 ML/day to the current flow of 7,300 ML/day. Further flow reductions are expected in the coming week to around 5,500 ML/day.

At the **Lower Lakes**, the 5-day average water level in Lake Alexandrina is 0.80 m AHD. Releases through the barrages in the last week have averaged around 2,000 ML/day. All fishways at the barrages remain open.

For media inquiries contact the Media Officer on 02 6279 0141

Andrew Reynolds
Executive Director, River Management



Water in Storage

Week ending Wednesday 18 Oct 2017

| MDBA Storages | Full Supply Level | Full Supply Volume | Current Storage Level | Current Storage | | Dead Storage | Active Storage | Change in Total Storage for the Week |
|---------------------------|-------------------|--------------------|-----------------------|-----------------|------------|--------------|----------------|--------------------------------------|
| | (m AHD) | (GL) | (m AHD) | (GL) | % | (GL) | (GL) | (GL) |
| Dartmouth Reservoir | 486.00 | 3 856 | 477.25 | 3 308 | 86% | 71 | 3 237 | +25 |
| Hume Reservoir | 192.00 | 3 005 | 190.10 | 2 637 | 88% | 23 | 2 614 | -35 |
| Lake Victoria | 27.00 | 677 | 26.56 | 624 | 92% | 100 | 524 | -12 |
| Menindee Lakes | | 1 731* | | 609 | 35% | (480 #) | 129 | -20 |
| Total | | 9 269 | | 7 178 | 77% | -- | 6 504 | -43 |
| Total Active MDBA Storage | | | | | | | 76% ^ | |

Major State Storages

| | | | | | | |
|----------------------|-------|-------|-----|-----|-------|-----|
| Burrinjuck Reservoir | 1 026 | 613 | 60% | 3 | 610 | +5 |
| Blowering Reservoir | 1 631 | 1 148 | 70% | 24 | 1 124 | -42 |
| Eildon Reservoir | 3 334 | 2 441 | 73% | 100 | 2 341 | +12 |

* Menindee surcharge capacity – 2050 GL

** All Data is rounded to nearest GL **

NSW has sole access to water when the storage falls below 480 GL. MDBA regains access to water when the storage next reaches 640 GL.

^ % of total active MDBA storage

Snowy Mountains Scheme

Snowy diversions for week ending 17 Oct 2017

| Storage | Active Storage (GL) | Weekly Change (GL) | Diversions (GL) | This Week | From 1 May 2017 |
|------------------------|---------------------|--------------------|------------------|-----------|-----------------|
| Lake Eucumbene - Total | 1 599 | n/a | Snowy-Murray | +0 | 505 |
| Snowy-Murray Component | - | n/a | Tooma-Tumut | - | 132 |
| Target Storage | 1 400 | | Net Diversion | n/a | 373 |
| | | | Murray 1 Release | +12 | 663 |

Major Diversions from Murray and Lower Darling (GL) *

| New South Wales | This Week | From 1 July 2017 | Victoria | This Week | From 1 July 2017 |
|---------------------------|-------------|------------------|---------------------------------|-----------|------------------|
| Murray Irrig. Ltd (Net) | 29.0 | 213 | Yarrowonga Main Channel (net) | n/a | 68 |
| Wakool Sys Allowance | 2.9 | 14 | Torrumbarry System + Nyah (net) | 0.1 | 117 |
| Western Murray Irrigation | 0.6 | 3 | Sunraysia Pumped Districts | 2.3 | 17 |
| Licensed Pumps | n/a | 44 | Licensed pumps - GMW (Nyah+u/s) | 1 | 7 |
| Lower Darling | n/a | 24 | Licensed pumps - LMW | 4.6 | 45 |
| TOTAL | 32.5 | 298 | TOTAL | 8 | 254 |

* Figures are derived from actual and estimates where data is unavailable. 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 environmental flows.

| | | |
|------------------------|---------|----------------|
| Entitlement this month | 170.5 * | |
| Flow this week | 67.2 | (9 600 ML/day) |
| Flow so far this month | 158.0 | |
| Flow last month | 191.0 | |

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

| | Current | Average over the last week | Average since 1 August 2017 |
|-------------------------|---------|----------------------------|-----------------------------|
| Swan Hill | 80 | 80 | 120 |
| Euston | - | - | - |
| Red Cliffs | 90 | 200 | 190 |
| Merbein | 150 | 160 | 170 |
| Burtundy (Darling) | 750 | 740 | 700 |
| Lock 9 | 180 | 170 | 180 |
| Lake Victoria | 200 | 210 | 240 |
| Berri | 250 | 280 | 310 |
| Waikerie | 370 | 390 | 370 |
| Morgan | 380 | 400 | 390 |
| Mannum | 410 | 430 | 420 |
| Murray Bridge | 450 | 450 | 490 |
| Milang (Lake Alex.) | 640 | 620 | 590 |
| Poltalloch (Lake Alex.) | 550 | 600 | 590 |
| Meningie (Lake Alb.) | 1 520 | 1 510 | 1 540 |
| Goolwa Barrages | 860 | 880 | 1 450 |



River Levels and Flows

Week ending Wednesday 18 Oct 2017

| | Minor Flood Stage | Gauge Height | | Flow (ML/day) | Trend | Average Flow this Week (ML/day) | Average Flow last Week (ML/day) |
|----------------------------------|-------------------|--------------|---------|---------------|-------|---------------------------------|---------------------------------|
| | | local (m) | (m AHD) | | | | |
| River Murray | (m) | | | | | | |
| Khancoban | - | - | - | 2 610 | F | 3 690 | 4 810 |
| Jingellic | 4.0 | 1.76 | 208.28 | 4 850 | F | 6 480 | 7 420 |
| Tallandoon (Mitta Mitta River) | 4.2 | 1.58 | 218.47 | 970 | F | 1 190 | 1 030 |
| Heywoods | 5.5 | 3.22 | 156.85 | 17 500 | R | 13 860 | 14 790 |
| Doctors Point | 5.5 | 3.47 | 151.94 | 20 370 | R | 16 970 | 17 370 |
| Albury | 4.3 | 2.51 | 149.95 | - | - | - | - |
| Corowa | 4.6 | 3.44 | 129.46 | 17 560 | R | 16 490 | 16 650 |
| Yarrowonga Weir (d/s) | 6.4 | 2.34 | 117.38 | 15 040 | S | 15 000 | 13 830 |
| Tocumwal | 6.4 | 2.96 | 106.80 | 14 770 | R | 14 780 | 11 910 |
| Torrumbarry Weir (d/s) | 7.3 | 2.16 | 80.70 | 6 080 | R | 6 580 | 7 470 |
| Swan Hill | 4.5 | 1.34 | 64.26 | 6 490 | F | 6 750 | 8 290 |
| Wakool Junction | 8.8 | 3.25 | 52.37 | 8 630 | S | 8 870 | 9 910 |
| Euston Weir (d/s) | 9.1 | 1.71 | 43.55 | 7 980 | F | 9 000 | 9 200 |
| Mildura Weir (d/s) | - | - | - | 8 180 | F | 8 490 | 7 180 |
| Wentworth Weir (d/s) | 7.3 | 2.98 | 27.74 | 7 740 | R | 8 380 | 6 640 |
| Rufus Junction | - | 3.51 | 20.44 | 6 580 | F | 8 880 | 8 750 |
| Blanchetown (Lock 1 d/s) | - | 0.88 | - | 9 460 | F | 9 930 | 7 480 |
| Tributaries | | | | | | | |
| Kiewa at Bandiana | 2.8 | 2.64 | 155.87 | 3 260 | R | 3 700 | 2 640 |
| Ovens at Wangaratta | 11.9 | 8.81 | 146.49 | 2 570 | R | 2 990 | 2 660 |
| Goulburn at McCoys Bridge | 9.0 | 1.45 | 92.87 | 870 | R | 940 | 2 450 |
| Edward at Stevens Weir (d/s) | 5.5 | 2.44 | 82.22 | 2 710 | F | 2 430 | 1 540 |
| Edward at Liewah | - | 2.19 | 57.57 | 1 480 | R | 1 420 | 1 180 |
| Wakool at Stoney Crossing | - | 1.54 | 55.03 | 700 | F | 740 | 660 |
| Murrumbidgee at Balranald | 5.0 | 1.66 | 57.62 | 1 170 | R | 1 080 | 1 040 |
| Barwon at Mungindi | 6.1 | 3.39 | - | 510 | R | 230 | 60 |
| Darling at Bourke | 9.0 | 4.02 | - | 90 | F | 110 | 200 |
| Darling at Burtundy Rocks | - | 0.87 | - | 530 | R | 280 | 210 |

| | | |
|------------------------|-------|--------|
| Natural Inflow to Hume | 3 330 | 12 100 |
|------------------------|-------|--------|

(i.e. Pre Dartmouth & Snowy Mountains scheme)

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 | -0.19 | - | No. 7 Rufus River | 22.10 | +0.46 | +1.19 |
| No. 26 Torrumbarry | 86.05 | +0.00 | - | No. 6 Murtho | 19.25 | +0.04 | +0.24 |
| No. 15 Euston | 47.60 | +0.28 | - | No. 5 Renmark | 16.30 | +0.13 | +0.27 |
| No. 11 Mildura | 34.40 | +0.00 | +0.18 | No. 4 Bookpurnong | 13.20 | +0.03 | +0.95 |
| No. 10 Wentworth | 30.80 | +0.01 | +0.34 | No. 3 Overland Corner | 9.80 | +0.01 | +0.51 |
| No. 9 Kulnine | 27.40 | +0.01 | +0.33 | No. 2 Waikerie | 6.10 | +0.18 | +0.34 |
| No. 8 Wangumma | 24.60 | +0.29 | +0.54 | No. 1 Blanchetown | 3.20 | -0.07 | +0.13 |

Lower Lakes FSL = 0.75 m AHD

| | |
|--|------|
| Lake Alexandrina average level for the past 5 days (m AHD) | 0.80 |
|--|------|

Barrages

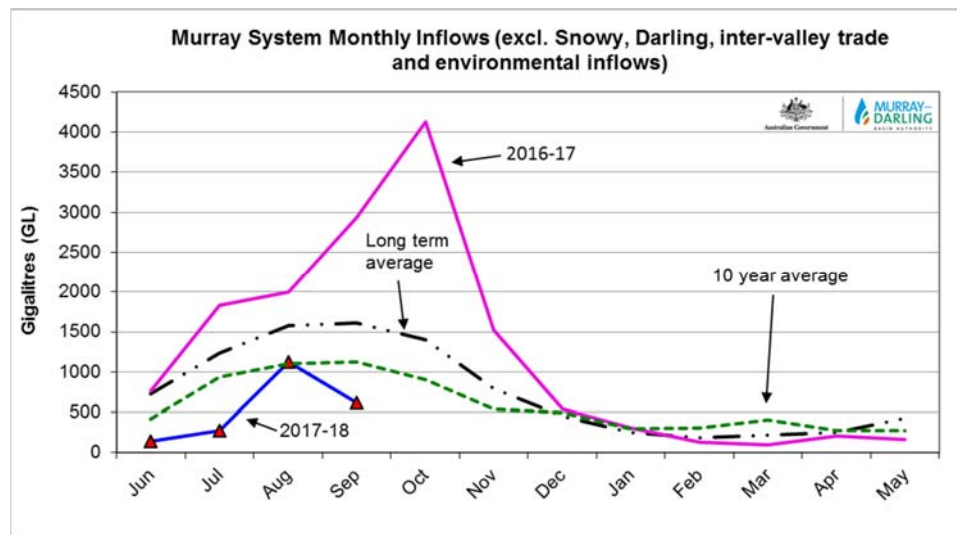
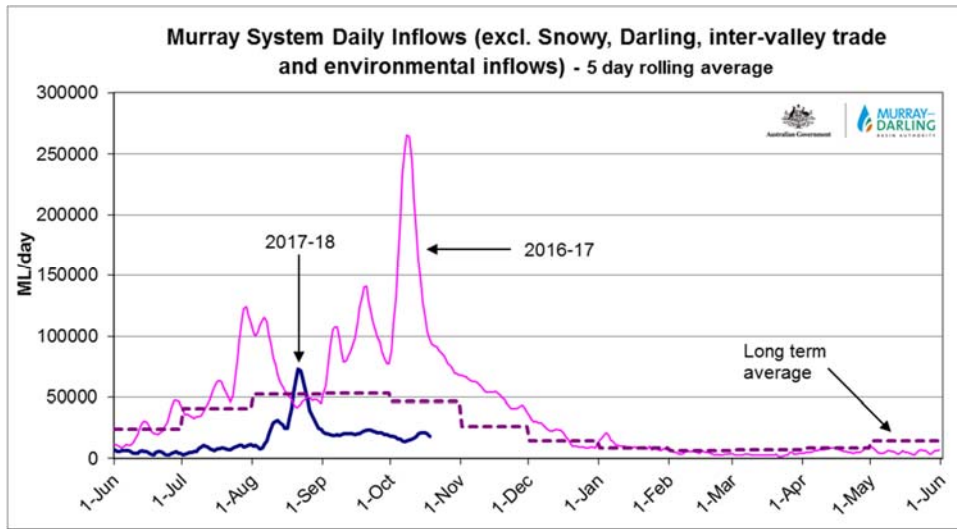
Fishways at Barrages

| | Openings | Level (m AHD) | No. Open | Rock Ramp | Vertical Slot 1 | Vertical Slot 2 | Dual Vertical Slots |
|----------------|--------------|---------------|------------|-----------|-----------------|-----------------|---------------------|
| Goolwa | 128 openings | 0.85 | 2 | - | Open | Open | - |
| Mundoo | 26 openings | 0.83 | 1 | - | - | - | Open |
| Hunters Creek | - | - | - | - | Open | - | - |
| Boundary Creek | 6 openings | - | 1 | - | Open | - | - |
| Ewe Island | 111 gates | - | All closed | - | - | - | Open |
| Tauwitchere | 322 gates | 0.86 | 6 | Open | Open | Open | - |

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



Week ending Wednesday 18 Oct 2017



State Allocations (as at 18 Oct 2017)

NSW - Murray Valley

| | |
|------------------|-----|
| High security | 97% |
| General security | 30% |

Victorian - Murray Valley

| | |
|------------------|------|
| High reliability | 100% |
| Low reliability | 0% |

NSW - Murrumbidgee Valley

| | |
|------------------|-----|
| High security | 95% |
| General security | 33% |

Victorian - Goulburn Valley

| | |
|------------------|-----|
| High reliability | 91% |
| 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>
 VIC : <http://nvrn.net.au/seasonal-determinations/current>
 SA : <http://www.environment.sa.gov.au/managing-natural-resources/river-murray>



JOINT MEDIA RELEASE

20 October 2017

Torrumbarry Weir lock in line for major refurbishment

Lock 26, which allows boat passage at Torrumbarry Weir on the River Murray, is to be drained and refurbished for the first time in more than 20 years.

The temporary closure of the lock, scheduled to start the day after Melbourne Cup, November 8, will not affect the normal operation of Torrumbarry Weir in terms of river flow and water supply. It will mean recreational water users will be unable to use the lock to travel up or downstream from the first week of November until the end of April next year.

Murray-Darling Basin Authority (MDBA) River Management Executive Director, Andrew Reynolds said the closure of Lock 26 would only affect the lock operation and river traffic.

"It is expected that the lock closure will cause minimal disruption to river traffic," Mr Reynolds said.

"This is because the works coincide with passage past Koondrook Bridge, downstream of the weir, being unavailable due to maintenance work to the bridge being undertaken by Roads and Maritime Services. The bridge work is scheduled to continue through to winter 2018.

"We know Torrumbarry Weir is popular with visitors over summer and the closure of the lock will not interfere with fishing, water skiing or other recreational activities on the river and its foreshore.

Goulburn-Murray Water (GMW) General Manager Customer Operations, Scott Barber, said the lock was last fully drained and inspected in 1995, when the original Torrumbarry Weir was replaced with a new, modern structure.

"To ensure the lock continues to operate reliably into the future, we need to fully inspect its foundations, concrete and drainage components," Mr Barber said.

"We'll make repairs as necessary to seals and mechanical parts and apply new protective coating to guard against corrosion."

The picturesque Torrumbarry Weir site, 35km north-west of Echuca, features a large grassed area, car parking, boat ramp, public toilets and a private holiday park with cabins, powered caravan sites and open camping grounds.

A riverside Interpretive Centre, with free entry, provides a display of the weir's rich engineering history, its continuing importance to irrigation and information on the mid-Murray River's flora and fauna.

In accordance with the longstanding Murray-Darling Basin Agreement, River Murray operations assets are owned by a 'Joint Venture' comprising of state and federal governments. The MDBA is tasked to operate the River Murray system on behalf of the

'Joint Venture'. GMW is the state constructing authority responsible for managing and maintaining Torrumbarry under the direction of the MDBA.

ENDS

For more information, contact the MDBA Media office at media@mdba.gov.au or 02 6279 0141 or Richard Bryce at GMW on (03) 5826 3470.

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