

# RIVER MURRAY FLOW REPORT

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Report #24/2016

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**This supersedes the previous flow report issued by the Department of Environment, Water and Natural Resources (DEWNR) on 24 June 2016. The next flow report will be provided on Friday, 8 July 2016.**

In this report, for ease of representation, large volumes of water are expressed in gigalitres (GL), while smaller volumes are expressed in megalitres (ML). One GL is equal to 1000 ML.

## WATER ALLOCATIONS AND CARRYOVER

South Australian River Murray water access entitlement holders (Class 3a, 3b, 4, 7 and 8) will begin 2016-17 with an opening water allocation of 36 per cent. Eligible water access entitlement holders (Class 3a, 3b, 4 and 7) will also have access to private carryover. The table below identifies the opening percentage water allocation for each Class of Water Access Entitlement in 2016-17.

Class of Water Access Entitlement	Volume of Water Available for Allocation	Water Allocation Rate	Water Allocation Rate as a % of Nominal Maximum Water Allocation Rate of 1 kL/unit share
	(kL)	(kL/unit share)	(%)
Class 1	8 704 910	1	100
Class 2	34 000 000	1	68
Class 3a	198 242 821	1	<b>36</b>
Class 3b	5 058 738	1	<b>36</b>
Class 4	1 592 469	1	<b>36</b>
Class 5	5 568 841	1	100
Class 6	32 500 000	1	25
Class 7	13 811 958	1	<b>36</b>
Class 8	7 992 000	1	<b>36</b>
Class 9	42 502 135	1	100

As rainfall events occur and inflows to storages increase, water users will be advised of any improvements to their water allocations via the River Murray Flow Report. This advice will be provided around the middle of the month.

In addition to the opening water allocation of 36 per cent, eligible water users will be granted private carryover in 2016-17. Eligible water users will receive a letter and updated water account with their carryover volume endorsed. It is expected that this advice will be received in October 2016. Eligibility criteria includes:

- underuse in 2015-16 and
- final meter readings submitted to DEWNR by 31 July 2016.

If you don't have a water meter you may still be eligible for carryover but you must contact DEWNR by 31 July 2016.

## MANAGEMENT OF SOUTH AUSTRALIA'S DEFERRED WATER

The Murray-Darling Basin Authority confirmed that, on 1 July 2016, South Australia will have 209.2 GL of deferred water in storage. Of this total, 130.5 GL is stored for critical human water needs and 78.7 GL for private carryover use in future dry years. Volumes stored are adjusted for net evaporation losses and spills until delivered to South Australia.

Opportunities to defer and store water are considered on the basis of how Entitlement Flow is managed, plus operational flow objectives for water quality and weather conditions.



## FLOW OUTLOOK

The flow at the South Australian border is approximately 2.9 GL/day and will increase to around 3.3 GL/day during the coming week. It comprises the normal June Entitlement Flow of 3 GL/day less deferred Entitlement Flow plus environmental water.

The flow over Lock 1 is approximately 2.5 GL/day and will increase to around 2.9 GL/day during the coming week, depending on weather conditions and extractions.

It is important to note that flow forecasts in this advice are based on the information available at the time of preparation. They may change as new gauging information becomes available, or due to rainfall events or changed operations upstream. The forecasts will be revised as new information becomes available.

## ENVIRONMENTAL WATER

During July 2016, the Commonwealth Environmental Water Holder (CEWH) and the Murray-Darling Basin Authority's *The Living Murray* are expected to provide up to 9 GL of environmental water to South Australia. The environmental water will provide in-channel, Lower Lakes and Coorong environmental and water quality benefits.

DEWNR is continuing discussions regarding environmental water to be delivered during 2016-17.

## MURRAY MOUTH

Dredging operations at the Murray Mouth commenced on 9 January 2015 to maintain connectivity (exchange of water) between the Coorong and the Southern Ocean.

Dredges are operating in the Tauwitchere and Goolwa Channels. At 26 June 2016, approximately 1 374 200 cubic metres of sand had been removed. The dredges are currently working 24 hours a day, 7 days a week, to move the significant volume of sand that was transported into the Murray Mouth as a result of storm events in late-May.

Mariners are advised that there are a number of shallow zones in the Murray Mouth. Mariners should follow all directions in the area and reduce their speed. Boats equipped with echo sounders are strongly encouraged to regularly check depths and avoid travelling at low tide. Mariners are reminded that navigation through the Murray Mouth is only permitted during daylight hours and that Exclusion Zones established around the dredging operations remain in place to ensure public safety. For more information refer to the Notice to Mariners at <http://dpti.sa.gov.au/news/?a=247918>

There is also a partial park closure in place for the northern tip of the Coorong National Park. For more information refer to the following [http://www.environment.sa.gov.au/parks/Safety/Park\\_closures/141219-coorong-national-park](http://www.environment.sa.gov.au/parks/Safety/Park_closures/141219-coorong-national-park)

Signage has been installed at appropriate locations advising of Exclusion Zones.

## BARRAGE OPERATIONS AND WATER LEVELS IN THE LOWER LAKES

The water level in Lake Alexandrina is approximately 0.68 m AHD and in Lake Albert is approximately 0.74 m AHD. The difference in water levels is due to wind effects.

During the week ending 28 June 2016, total barrage releases were less than 1 GL. The barrages are closed to minimise the risk of seawater entering Lake Alexandrina due to adverse conditions but will be re-opened when conditions improve. Fishways are operational to provide a fish passage between Lake Alexandrina and the Coorong.

SA Water will continue to operate the barrages to minimise any negative salinity impacts from reverse flow events.

Water levels and barrage operations are monitored closely by South Australian Government agencies, the Murray-Darling Basin Authority and Commonwealth Environmental Water Office.

### **WEIR POOL OPERATIONS** *(current)*

The Lock 1 weir pool remains approximately 0.1 m below the normal pool level of 3.2 m AHD to enable engineering investigations to be undertaken at the weir.

### **WEIR POOL OPERATIONS** *(potential)*

DEWNR is currently considering raising the Lock 2 weir pool by up to 75 cm above normal pool level (NPL) and Lock 5 weir pool by up to 50 cm above NPL, during spring (August to October). Raising of Lock 6 is also being considered in association with the potential operation of the Chowilla Regulator. While these events are being planned, any operation or activity will depend on the flow to South Australia and availability of environmental water across the Murray-Darling Basin.

Weir pool manipulations aim to reinstate some of the natural variability of water levels in the River Murray system, which have been lost due to river regulation. The manipulations will assist to improve lateral connectivity, health, resilience and biodiversity of the river channel, floodplain and wetlands. Weir pool manipulations are an increasingly common feature of routine river operations.

### **CHOWILLA WATERING**

A range of environmental watering actions are being considered for the Chowilla Floodplain Icon site during 2016-17. These include potential further testing of the Chowilla Regulator to a higher level in conjunction with raising Lock 6. This will only occur if flow in the River Murray is in excess of 15 GL/day and environmental water is made available.

### **MODERNISATION OF WAIKERIE RIVER VESSEL WASTE DISPOSAL STATION**

Modernisation of the Waikerie River Vessel Waste Disposal Station will commence on 25 July 2016. The facility will be closed until 31 October 2016. Alternative temporary arrangements for pumping waste from vessels have been arranged. The temporary pump out service will be available 1 Kilometre downstream of the Waikerie River Vessel Waste Disposal Station. Users will need to call Mr Mick Kemp on 0428 861 777 to arrange a suitable time between 8 am and 4 pm. Please note that 3 hour notice will be essential.

### **NAVIGATION ISSUES**

Sandbars in the vicinity of the Murray Mouth may cause navigation hazards. Mariners are advised to navigate with caution when operating in the area. Sandbars are also present along sections of the River Murray, downstream of Locks 7 and 8 and in South Australia. All watercraft users should be aware of the risk of submerged navigation hazards, and should regularly check river depth.

### **WATER QUALITY – Algal Blooms**

All red alert warnings for blue-green algae in the River Murray, Edward and Wakool systems have now been lifted.

The Murray-Darling Basin Authority and the relevant South Australian Government agencies are regularly monitoring the situation. If the situation changes, advice will be provided to the community.

### **WATER TRADE CUT-OFF DATE**

The South Australian Government introduced a cut-off date for water access entitlement holders to receive guaranteed processing and determining of River Murray allocation trade applications for the 2015-16 water year. This date has now passed (third Friday in June annually). Water allocation trade applications received by 17 June 2016 were guaranteed to be processed within 2015-16. Trade applications received after 17 June 2016 will be processed as soon as possible, but processing by 30 June 2016 cannot be guaranteed.

## RIVER MURRAY WATER LEVELS

Below is a table of River Murray water levels at a number of locations from Lock 10 (near Wentworth) to Murray Bridge.

### River Murray Water Levels on 29 June 2016

Location	River km	Normal Pool Level	Current Level (m AHD)	1974 Flood Level (m AHD)	1993 Flood Level (m AHD)	2011 High Water Level (m AHD)
Lock 10	825.0	30.80	30.80	33.81	33.32	32.28
Lock 9 Kulnine	764.8	27.40	27.48	30.03	29.44	28.80
Lock 8 Wangumma	725.7	24.60	24.61	27.60	27.19	26.79
Lock 7 Rufus River	696.6	22.10	22.13	25.70	25.24	24.92
Lock 6 Murtho	619.8	19.25	19.21	21.03	20.50	20.11
Renmark	567.4	-	-	18.54	18.04	17.38
Lock 5	562.4	16.30	16.33	18.07	17.50	17.05
Lyrup	537.8	-	13.25	16.85	16.26	15.68
Berri	525.9	-	13.24	15.81	15.74	15.16
Lock 4	516.2	13.20	13.23	15.65	15.08	14.75
Loxton	489.9	-	9.99	15.05	14.12	13.42
Cobdogla	446.9	-	9.84	13.44	12.38	11.52
Lock 3	431.4	9.80	9.81	13.16	12.02	10.93
Overland Corner	425.9	-	6.23	12.73	11.58	10.27
Waikerie	383.6	-	6.28	11.26	10.24	9.06
Lock 2	362.1	6.10	6.16	10.28	9.30	8.25
Cadell	332.6	-	3.20	9.17	8.08	6.82
Morgan	321.7	-	3.19	8.85	7.65	6.20
Lock 1 Blanchetown	274.2	3.20	3.12	6.81	5.38	4.42
Swan Reach	245.0	0.75	0.63	6.06	4.51	3.09
Mannum PS	149.8	0.75	0.65	3.15	1.90	1.46
Murray Bridge	115.3	0.75	0.62	2.06	1.26	1.21

Note that the above water levels may be affected by local wind conditions.



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## FURTHER INFORMATION

The WaterConnect website is South Australia's comprehensive water information portal and can be accessed at <http://www.waterconnect.sa.gov.au>

Up-to-date River Murray salinity, flow and water level information can be accessed at the Department of Environment, Water and Natural Resources, SA Water and Murray-Darling Basin Authority websites  
<https://www.waterconnect.sa.gov.au/Systems/RTWD/Pages/Default.aspx>  
<http://www.sawater.com.au/SAWater/Environment/WaterProofingAdelaide/TheRiverMurray/RMOU/Dailyflow.htm>  
<http://livedata.mdba.gov.au/>

The latest news, information and announcements about the River Murray and Basin Plan are available at [\*River Murray Update\*](#)

The Department of Environment, Water and Natural Resources has published a series of inundation maps for the River Murray. They are available at <https://www.waterconnect.sa.gov.au/Systems/RMIM/SitePages/Home.aspx>

Information on the management of acid drainage water in the Lower River Murray can be accessed at [http://www.epa.sa.gov.au/environmental\\_info/water\\_quality/programs/acid\\_sulfate\\_soils/lower\\_river\\_murray\\_reclaimed\\_irrigation\\_area\\_lmria](http://www.epa.sa.gov.au/environmental_info/water_quality/programs/acid_sulfate_soils/lower_river_murray_reclaimed_irrigation_area_lmria)

Details of river height and rainfall information in the River Murray within Victoria and New South Wales are available at the Bureau of Meteorology website <http://www.bom.gov.au/vic/flood>

Information provided by the Commonwealth Environmental Water Office can be accessed at [www.environment.gov.au/ewater/southern/murray/lower-murray.html](http://www.environment.gov.au/ewater/southern/murray/lower-murray.html)

Information on The Living Murray can be accessed at <http://www.mdba.gov.au/managing-water/environmental-water/delivering-environmental-water/living-murray-program>

Chowilla Floodplain Icon Site management <http://www.environment.sa.gov.au/Chowilla-floodplain>

Department of Environment, Water and Natural Resources  
<http://www.environment.sa.gov.au/Home>

Information provided by the Department of Transport, Energy and Infrastructure on boat licences, registering motor boats, owning and operating water craft, and boat and marine safety can be accessed at [www.sa.gov.au/boatingmarine](http://www.sa.gov.au/boatingmarine)

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