

# RIVER MURRAY FLOW REPORT

**Report #3/2019**

**Issued 10:00 am 25 January 2019**

**This supersedes the previous flow report issued by the Department for Environment and Water (DEW) on 18 January 2019. The next report will be provided on Friday 1 February 2019.**

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 1 000 ML.

## **WATER QUALITY – Blue-green algae**

It is reasonably common for algal blooms to be reported at this time of the year.

There is a blue-green algal bloom and major fish kill in the lower Darling River. This is a result of dry conditions, low flows and high temperatures. There is no risk of this algal bloom and fish kill having an impact on South Australia. This is because there is no flow from the Darling River into the River Murray and flowing to South Australia.

On the River Murray, upstream of the South Australian border, there is a blue-green algal alert. Currently, there is no evidence of elevated blue-green algae in the South Australian section of the River Murray. There is an increased risk of an algal bloom developing in the South Australian section of the River Murray due to the extreme high temperatures, reducing flows, abundant sunlight, sufficient levels of nutrients and observations upstream. If the situation changes, advice will be provided.

The relevant South Australian Government agencies are regularly monitoring the situation.

## **FLOW OUTLOOK**

The flow at the South Australian border is approximately 7.5 GL/day and will increase to around 8 GL/day during the coming week. It comprises:

- normal January Entitlement Flow of 7 GL/day;
- less deferred water;
- plus environmental water; and
- interstate trade adjustments.

The flow over Lock 1 is approximately 3.6 GL/day and will remain around this rate 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. Advice may change as new gauging information becomes available, or due to rainfall events or changed operations upstream.

## **RIVER MURRAY SYSTEM WATER DELIVERY SHORTFALL RISKS**

Water delivery shortfalls are rare but occur when available water cannot be delivered to users when they want it. For example, it could happen when demand exceeds the physical capacity of rivers and channels or when demand for water unexpectedly spikes and there's not enough time to release additional water from upstream reservoirs to meet the demand.

Water holders along the River Murray, especially downstream of the Barmah Choke (which is located upstream of Echuca in Victoria and Deniliquin in NSW), need to understand the risk of a water delivery shortfall and take it into account in business planning and investment decisions. For more information about water delivery shortfall see the factsheet on the Murray-Darling Basin Authority's website [RM water delivery shortfall risk factsheet](#)



The risk of a shortfall being experienced in South Australia during 2018-19 is extremely low. In any event, there is no risk to South Australian River Murray Entitlement Holders receiving their full 100% water allocation.

### ENVIRONMENTAL WATER

During January, environmental water will be delivered to South Australia for:

- a range of outcomes at wetlands in the Riverland via arrangements with the Nature Foundation SA, SA Murray-Darling Basin Natural Resources Management Board and at Banrock Station; and
- the Lower Lakes and Coorong to:
  - improve salinity and water quality;
  - manage lake water levels while providing for ongoing releases to the Coorong;
  - provide conditions to support estuarine fish breeding, including black bream (for further details see *Barrage Operations and Water Levels in the Lower Lakes* section).

### 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.

Two dredges are operating 24/7 in the Goolwa and Tauwitchere channels. At 20 January 2019, a total of approximately 3 925 359 cubic metres of sand had been removed by dredging operations. Barrage releases combined with dredging have helped to maintain connectivity of the Murray Mouth.

There are a number of shallow zones in and adjacent to the Murray Mouth. Mariners should use caution when traversing the mouth area, follow all directions, reduce speed and avoid travelling at low tide. Mariners equipped with echo sounders should check depths regularly. Navigation through the Murray Mouth is only permitted during daylight hours. Exclusion Zones established around the dredging operations are in place to ensure public safety. Refer to Notice to Mariners No 42 of 2016 [Notice 42](#).

There is a partial park closure in place for the northern tip of the Coorong National Park. For more information visit [Coorong partial park closure notice](#)

### BARRAGE OPERATIONS AND WATER LEVELS IN THE LOWER LAKES

The water level in Lake Alexandrina is approximately 0.63 m AHD and Lake Albert is approximately 0.65 m AHD. The difference in water level is due to wind effects. When possible, water levels are being managed to achieve a target water level of between 0.6 m AHD and 0.7 m AHD by the end of January 2019.

During the week ending 22 January 2019 total barrage releases were approximately 9 GL. All fishways remain open. During adverse weather conditions SA Water will operate the barrages to minimise the risk of seawater entering Lake Alexandrina, therefore minimising any negative salinity impacts from reverse flow events.

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

### 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 Mariners should be aware of the risk of submerged navigation hazards, and should regularly check river depth.

### RIVERINE RECOVERY CONSTRUCTION WORKS

The Riverine Recovery Project is in the process of constructing environmental regulators to manage a number of wetlands between Mannum and Murtho. Construction is expected to be completed around the end of March to April 2019.

### **SOUTH AUSTRALIAN RIVERLAND FLOODPLAINS INTEGRATED INFRASTRUCTURE PROGRAM (SARFIIP) CONSTRUCTION WORKS**

The construction of regulating structures and a blocking bank on the Pike Floodplain has commenced. The works are expected to be completed by December 2019. The works will enable:

- a portion of the floodplain to be inundated more regularly to improve ecological health; and
- fish to move freely between the River Murray and the floodplain.

During the construction period, for safety reasons, vessels and persons other than those participating in the works are prohibited from entering the Pike River near the Rumpagunyah Creek and Tanyaca Creek junction, downstream of the Mundic Creek junction.



## RIVER MURRAY WATER LEVELS

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

**River Murray Water Levels**

Location	River km	Normal Pool Level (m AHD)	Current Level 23/1/2019 (m AHD)	1974 Flood Level (m AHD)	1993 Flood Level (m AHD)	2016 High Water Level (m AHD)
Lock 10	825.0	30.80	30.92	33.81	33.32	32.72
Lock 9 Kulnine	764.8	27.40	27.40	30.03	29.44	28.85
Lock 8 Wangumma	725.7	24.60	24.18	27.60	27.19	26.85
Lock 7 Rufus River	696.6	22.10	22.01	25.70	25.24	24.97
Lock 6 Murtho	619.8	19.25	19.26	21.03	20.50	20.19
Renmark	567.4	-	16.33	18.54	18.04	17.44
Lock 5	562.4	16.30	16.33	18.07	17.50	17.05
Lyrup	537.8	-	13.26	16.85	16.26	15.80
Berri	525.9	-	13.23	15.81	15.74	15.21
Lock 4	516.2	13.20	13.23	15.65	15.08	14.73
Loxton	489.9	-	10.06	15.05	14.12	13.54
Cobdogla	446.9	-	9.88	13.44	12.38	11.59
Lock 3	431.4	9.80	9.85	13.16	12.02	10.98
Overland Corner	425.9	-	6.26	12.73	11.58	10.41
Waikerie	383.6	-	6.27	11.26	10.24	9.20
Lock 2	362.1	6.10	6.15	10.28	9.30	8.32
Cadell	332.6	-	3.30	9.17	8.08	7.01
Morgan	321.7	-	3.29	8.85	7.65	6.38
Lock 1 Blanchetown	274.2	3.20	3.21	6.81	5.38	4.46
Swan Reach	245.0	0.75	0.70	6.06	4.51	3.11
Mannum PS	149.8	0.75	0.68	3.15	1.90	1.33
Murray Bridge	115.3	0.75	0.63	2.06	1.26	1.04

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

## FURTHER INFORMATION

The WaterConnect website is South Australia's comprehensive water information portal and can be accessed at [Home page](#)

Up-to-date River Murray salinity, flow and water level information can be accessed at the Department for Environment and Water, SA Water and Murray-Darling Basin Authority websites

- [Water allocation and carryover announcements](#)
- [River Murray real-time water data](#)
- [SA Water River Murray info - levels, flows etc.](#)
- [Murray-Darling Basin real-time water data](#)

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

The Department for Environment and Water has published a series of inundation maps for the River Murray. They are available at [River Murray Inundation Maps](#)

Information on the management of acid drainage water in the Lower River Murray can be accessed at [Acid drainage water 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

[Victoria rainfall and river conditions](#)

[NSW rainfall and river conditions](#)

Information provided by the Commonwealth Environmental Water Office can be accessed at [CEWH Environmental Watering](#)

Information on The Living Murray can be accessed at [MDBA TLM](#)

Chowilla Floodplain Icon Site management [Chowilla-floodplain](#)

Department for Environment and Water [Home page](#)

Information provided by the Department of Planning, Transport and Infrastructure on boat licences, registering motor boats, owning and operating water craft, and boat and marine safety can be accessed at [Boating and marine](#)

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