

# RIVER MURRAY FLOW REPORT

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Report #50/2013

Issued 10:00 am 20 December 2013

**This supersedes the previous flow report issued by the Department of Environment, Water and Natural Resources (DEWNR) on 13 December 2013. There will be no flow report issued between Christmas and New Year. The next flow report will be provided on Friday, 3 January 2013.**

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.

## FLOW OUTLOOK

The flow at the South Australian border is approximately 11 000 ML/day and will increase to around 14 500 ML/day during the coming week, before reducing to around 9 000 ML/day during the following week, depending on upstream river and storage operations, extractions, and rainfall events. The flow comprises the December Entitlement Flow of 7 000 ML/day, minus deferred Entitlement Flow of 650 ML/day, plus environmental water from The Living Murray and Commonwealth Environmental Water Holder. The environmental water will provide ecological and water quality benefits.

It may be difficult to deliver environmental water to South Australia during late summer and early autumn due to upstream channel capacity constraints and the high likelihood of the Menindee Lakes control transferring back to the New South Wales Government in early 2014 (due to storage volume). South Australia is continuing negotiations with the Commonwealth Environmental Water Holder about the delivery of additional environmental water during mid to late autumn.

On 1 December 2013, South Australia activated its formal Storage Right by requesting that the Murray-Darling Basin Authority (MDBA) defer and store part of its Entitlement Flow in the upstream (interstate) storages. The MDBA will defer and store 20 GL of South Australia's Entitlement Flow in December 2013 for critical human water needs (CHWN) use in future dry years. DEWNR is currently considering opportunities to defer and store additional Entitlement Flow for CHWN and private carryover in early 2014. These considerations will include the Bureau of Meteorology's updated climate outlook provided on 18 December 2013, which indicates a high probability of below median rainfall across the majority of the Murray-Darling Basin.

The flow over Lock 1 is approximately 7 000 ML/day and will increase to around 11 000 ML/day during the coming week, before reducing to around 6 000 ML/day during the following 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. Flow forecasts are dependent on predictions made by the Bureau of Meteorology, Murray-Darling Basin Authority and water management agencies in upstream jurisdictions. They will be revised as new information becomes available.

## BARRAGE OPERATIONS AND WATER LEVELS IN THE LOWER LAKES

The water level in Lake Alexandrina is approximately 0.72 m AHD and Lake Albert is approximately 0.73 m AHD. Barrage operations will target a water level of 0.80 m AHD in both Lakes by the beginning of January 2014. The aim of this action is to maximise water availability for continuous barrage releases during summer. Barrage releases are being prioritised through the Tauwichee and Goolwa barrages to maintain an open and functioning Murray Mouth and promote native fish migration. All barrage fishways are in operation and are being supplemented with attractant flows in adjacent bays. SA Water will continue to operate the barrages to minimise any negative salinity impacts from reverse flow events.



To see live salinity data at various locations on the River Murray and in the Lower Lakes, please refer to the following website: <http://www.waterconnect.sa.gov.au/Systems/RTWD/SitePages/Home.aspx>

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

### **WATER QUALITY**

The New South Wales Government (through Sunraysia Regional Algal Coordinating Committee) has issued a red alert warning for toxic blue-green algae in Lake Menindee and the Great Darling Anabranch at, and upstream of, Tara Downs. The water at these sites is unsuitable for domestic, irrigation and recreational purposes. Although these toxic blue-green algal blooms pose no immediate threat to South Australia at this stage, the Murray-Darling Basin Authority and the relevant South Australian Government agencies are regularly monitoring the situation. It is not uncommon to experience algal blooms at this time of the year.

### **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 in South Australia and all watercraft users should be aware of, and regularly check, the river depth.

### **CONSTRUCTION WORKS**

#### *Currency Creek*

Subject to confirmation by the Commonwealth Government under the Environment Protection and Biodiversity Conservation Act 1999 (Cwlth), water-based works to remove the Currency Creek Regulator are completed and the boating exclusion zone has been removed. The site has a stockpile of rock material that was removed from the regulator, which will be removed when conditions improve to enable access.

#### *Chowilla*

Construction of the Chowilla Creek Environmental Regulator and associated structures is ongoing. For public safety reasons the Chowilla Creek remains closed to navigation at the construction site. Works are also underway to upgrade the weirs on Pipeclay Creek and Slaney Creek to improve the management of flows into the Chowilla anabranch and to enable fish passage. Public access around the weirs is restricted during this construction program.

### 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 18 December 2013

| Location           | River km | Normal Pool Level | Current Level (m AHD) | 1974 Flood Level (m AHD) | 1993 Flood Level (m AHD) |
|--------------------|----------|-------------------|-----------------------|--------------------------|--------------------------|
| Lock 10            | 825.0    | 30.80             | 30.82                 | 33.81                    | 33.32                    |
| Lock 9 Kulnine     | 764.8    | 27.40             | 27.44                 | 30.03                    | 29.44                    |
| Lock 8 Wangumma    | 725.7    | 24.60             | 24.61                 | 27.60                    | 27.19                    |
| Lock 7 Rufus River | 696.6    | 22.10             | 22.14                 | 25.70                    | 25.24                    |
| Lock 6 Murtho      | 619.8    | 19.25             | 19.25                 | 21.03                    | 20.50                    |
| Renmark            | 567.4    | -                 | 16.28                 | 18.54                    | 18.04                    |
| Lock 5             | 562.4    | 16.30             | 16.27                 | 18.07                    | 17.50                    |
| Lyrup              | 537.8    | -                 | 13.25                 | 16.85                    | 16.26                    |
| Berri              | 525.9    | -                 | 13.20                 | 15.81                    | 15.74                    |
| Lock 4             | 516.2    | 13.20             | 13.19                 | 15.65                    | 15.08                    |
| Loxton             | 489.9    | -                 | 10.16                 | 15.05                    | 14.12                    |
| Cobdogla           | 446.9    | -                 | -                     | 13.44                    | 12.38                    |
| Lock 3             | 431.4    | 9.80              | 9.79                  | 13.16                    | 12.02                    |
| Overland Corner    | 425.9    | -                 | 6.35                  | 12.73                    | 11.58                    |
| Waikerie           | 383.6    | -                 | 6.30                  | 11.26                    | 10.24                    |
| Lock 2             | 362.1    | 6.10              | 6.13                  | 10.28                    | 9.30                     |
| Cadell             | 332.6    | -                 | 3.38                  | 9.17                     | 8.08                     |
| Morgan             | 321.7    | -                 | 3.29                  | 8.85                     | 7.65                     |
| Lock 1 Blanchetown | 274.2    | 3.20              | 3.19                  | 6.81                     | 5.38                     |
| Swan Reach         | 245.0    | 0.75              | 0.79                  | 6.06                     | 4.51                     |
| Mannum PS          | 149.8    | 0.75              | 0.77                  | 3.15                     | 1.90                     |
| Murray Bridge      | 115.3    | 0.75              | 0.70                  | 2.06                     | 1.26                     |

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 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:

<http://www.waterconnect.sa.gov.au/Systems/RTWD/SitePages/Home.aspx>  
[www.sawater.com.au/SAWater/Environment/TheRiverMurray/River+Murray+Levels.htm](http://www.sawater.com.au/SAWater/Environment/TheRiverMurray/River+Murray+Levels.htm)  
[www.mdba.gov.au/water/live-river-data](http://www.mdba.gov.au/water/live-river-data)

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

Information on the management of acid drainage water in the Lower River Murray can be accessed online at: [http://www.epa.sa.gov.au/environmental\\_info/water\\_quality/acid\\_sulfate\\_soils\\_ass/lower\\_river\\_murray\\_reclaimed\\_irrigation\\_area\\_lmria](http://www.epa.sa.gov.au/environmental_info/water_quality/acid_sulfate_soils_ass/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/about-basin/environmental-sites>

Information is also available from the SA Water Hotline on **08 8595 2299**

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

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