

RIVER MURRAY FLOW REPORT

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Report #4/2014

Issued 10:00 am 24 January 2014

This supersedes the previous flow report issued by the Department of Environment, Water and Natural Resources (DEWNR) on 17 January 2014. The next flow report will be provided on Friday, 31 January 2014.

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 7 500 ML/day and will remain around this rate during the coming week, depending on upstream river and storage operations, extractions, and rainfall events. The flow comprises the January Entitlement Flow of 7 000 ML/day, minus deferred Entitlement Flow of 320 ML/day, plus environmental water from the Commonwealth Environmental Water Holder. Environmental water delivery is expected to cease in late January 2014. South Australia is working with the Commonwealth Environmental Water Holder to seek opportunities to deliver additional environmental water in autumn.

By 1 January 2014, South Australia had 20 GL of its Entitlement Flow stored in the upstream (interstate) storages for critical human water needs (CHWN) use in future dry years. South Australia has requested that the Murray-Darling Basin Authority defer and store an additional 10 GL of South Australia's Entitlement Flow in January 2014 for CHWN use. DEWNR is currently considering opportunities to defer and store Entitlement Flow for private carryover.

The flow over Lock 1 is approximately 3 000 ML/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. 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 0.69 m AHD and Lake Albert is approximately 0.56 m AHD. Due to the extreme temperature conditions experienced last week, the water level in the Lower Lakes has reduced slightly. The volume of water in the Lower Lakes is being managed to maximise water availability for continuous barrage releases during the remainder of 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

Due to operations at Locks 7, 8, 9 and the Lake Victoria Outlet Regulator, a small rise in salinity level (approximately 20 EC increase) is expected at the South Australian border commencing around 24 January 2014 and lasting for approximately one week. It is expected that this will diffuse as it moves down the length of the river.

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. The New South Wales Government has also issued a red alert warning for toxic blue-green algae at Griffiths and Wagga Wagga on the Murrumbidgee River, where the water is unsuitable for recreation. Although these toxic blue-green algal blooms pose no 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

Lake Victoria Outlet Regulator

Remedial works on the Lake Victoria Outlet Regulator will commence in mid-February 2014 and be completed around June 2014. The works are necessary to improve the integrity of the regulator.

Mullaroo Creek

Remedial works in the Mullaroo Creek (located in Victoria and flows into the Lindsay River, which enters the River Murray between Lock 6 and 7) will commence in mid-February 2014 and be completed around June 2014. The works are necessary to improve the control of flows in this system. For public safety reasons the Mullaroo Creek will be closed to navigation at the work site during this period.

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 22 January 2014

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	27.34	30.03	29.44
Lock 8 Wangumma	725.7	24.60	24.34	27.60	27.19
Lock 7 Rufus River	696.6	22.10	22.12	25.70	25.24
Lock 6 Murtho	619.8	19.25	19.27	21.03	20.50
Renmark	567.4	-	16.35	18.54	18.04
Lock 5	562.4	16.30	16.33	18.07	17.50
Lyrup	537.8	-	13.26	16.85	16.26
Berri	525.9	-	13.20	15.81	15.74
Lock 4	516.2	13.20	13.23	15.65	15.08
Loxton	489.9	-	-	15.05	14.12
Cobdogla	446.9	-	-	13.44	12.38
Lock 3	431.4	9.80	9.82	13.16	12.02
Overland Corner	425.9	-	6.27	12.73	11.58
Waikerie	383.6	-	6.29	11.26	10.24
Lock 2	362.1	6.10	6.13	10.28	9.30
Cadell	332.6	-	3.30	9.17	8.08
Morgan	321.7	-	3.24	8.85	7.65
Lock 1 Blanchetown	274.2	3.20	3.21	6.81	5.38
Swan Reach	245.0	0.75	0.78	6.06	4.51
Mannum PS	149.8	0.75	0.72	3.15	1.90
Murray Bridge	115.3	0.75	0.65	2.06	1.26

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

River Murray Flow Report

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
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

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

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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