

RIVER MURRAY FLOW REPORT

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Report #48/2017

Issued 10:00 am 1 December 2017

This supersedes the previous flow report issued by the Department of Environment, Water and Natural Resources (DEWNR) on 24 November 2017. The next report will be provided on Friday 8 December 2017.

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 13.5 GL/day and will increase to around 15 GL/day during the coming week. It comprises:

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

The flow over Lock 1 is approximately 10 GL/day and will increase to around 12 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. Advice 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 December, approximately 160 GL of environmental water is expected to be delivered to South Australia. This volume will vary depending on rainfall and weather conditions, with widespread rainfall forecast across the southern Murray-Darling Basin in the coming days. This includes forecast rainfall of up to 100 mm-200 mm in the upper Murray, Murrumbidgee and Victorian rivers over the weekend. Environmental water will provide environmental and water quality benefits to the River Murray channel, Lower Lakes and Coorong.

Environmental water is being provided predominantly from:

1. Hume Reservoir on the River Murray. The release of environmental water from the upstream storages is contributing towards outcomes for Moira grass in the Millewa Forest (part of the Barmah-Millewa Ramsar site), before contributing to environmental outcomes in the lower River Murray.
2. Hattah Lakes Ramsar site in Victoria. Environmental water used to support Black box woodlands during spring is being released back to the river for environmental outcomes in the lower River Murray throughout November, December and January.
3. Victorian rivers. Environmental water is being used to support golden and silver perch spawning in the Goulburn and Campaspe rivers in Victoria, before contributing to ecological benefits in the River Murray in South Australia.

DEWNR is continuing discussions regarding environmental water to be delivered during 2017-18.

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 in the Goolwa and Tauwitchere channels. At 26 November 2017, a total of approximately 2 464 288 cubic metres of sand had been removed by dredging operations.



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There are a number of shallow zones in and adjacent to the Murray Mouth. Mariners should follow all directions in the area and reduce speed. Boats equipped with echo sounders should check depths regularly 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 are in place to ensure public safety. Refer to Notice to Mariners No 42 of 2016 www.dpti.sa.gov.au/news?a=287322

There is a partial park closure in place for the northern tip of the Coorong National Park. For more information visit www.environment.sa.gov.au/parks/Safety/Park_closures/141219-coorong-national-park.

BARRAGE OPERATIONS AND WATER LEVELS IN THE LOWER LAKES

The water level in Lake Alexandrina is approximately 0.82 m AHD and Lake Albert is approximately 0.78 m AHD. The difference in water levels is due to wind effects. When possible, water levels are being managed to achieve a target water level of between 0.75 m AHD and 0.85 m AHD during December 2017.

During the week ending 28 November 2017 total barrage releases were approximately 19 GL, with releases prioritised at Tauwitchere, Goolwa and Boundary Creek. These releases include environmental water targeting black bream spawning and recruitment. 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.

All fishways are operational and providing fish passage between Lake Alexandrina and the Coorong.

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

WEIR POOL OPERATIONS

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

Earlier this year, the Department lowered and raised water levels in selected weir pools. Feedback from the community and water users on these weir pool manipulations is strongly encouraged. Please email your feedback to samdbenquiries@sa.gov.au.

There are no plans in place to raise or lower weir pool levels outside of their normal operating range during the remainder of 2017-18.

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.



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

Location	River km	Normal Pool Level (m AHD)	Current Level 29/11/2017 (m AHD)	1974 Flood Level (m AHD)	1993 Flood Level (m AHD)	2016 High Water Level (m AHD)
Lock 10	825.0	30.80	30.82	33.81	33.32	32.72
Lock 9 Kulnine	764.8	27.40	27.42	30.03	29.44	28.85
Lock 8 Wangumma	725.7	24.60	24.92	27.60	27.19	26.85
Lock 7 Rufus River	696.6	22.10	22.60	25.70	25.24	24.97
Lock 6 Murtho	619.8	19.25	19.25	21.03	20.50	20.19
Renmark	567.4	-	16.28	18.54	18.04	17.44
Lock 5	562.4	16.30	16.27	18.07	17.50	17.05
Lyrup	537.8	-	13.29	16.85	16.26	15.80
Berri	525.9	-	13.22	15.81	15.74	15.21
Lock 4	516.2	13.20	13.24	15.65	15.08	14.73
Loxton	489.9	-	10.30	15.05	14.12	13.54
Cobdogla	446.9	-	9.92	13.44	12.38	11.59
Lock 3	431.4	9.80	9.86	13.16	12.02	10.98
Overland Corner	425.9	-	6.41	12.73	11.58	10.41
Waikerie	383.6	-	6.31	11.26	10.24	9.20
Lock 2	362.1	6.10	6.15	10.28	9.30	8.32
Cadell	332.6	-	3.29	9.17	8.08	7.01
Morgan	321.7	-	3.21	8.85	7.65	6.38
Lock 1 Blanchetown	274.2	3.20	3.13	6.81	5.38	4.46
Swan Reach	245.0	0.75	0.84	6.06	4.51	3.11
Mannum PS	149.8	0.75	0.82	3.15	1.90	1.33
Murray Bridge	115.3	0.75	0.76	2.06	1.26	1.04

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 <https://www.waterconnect.sa.gov.au/Pages/Home.aspx>

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

- www.environment.sa.gov.au/managing-natural-resources/river-murray/water-allocation-and-trade/water-allocations-and-announcements
- www.waterconnect.sa.gov.au/Systems/RTWD/Pages/Default.aspx
- 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 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 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 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 www.mdba.gov.au/managing-water/environmental-water/delivering-environmental-water/living-murray-program

Chowilla Floodplain Icon Site management www.environment.sa.gov.au/Chowilla-floodplain

Department of Environment, Water and Natural Resources www.environment.sa.gov.au

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 www.sa.gov.au/boatingmarine

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