RIVER MURRAY FLOW REPORT



Report #18/2018 Issued 10:00 am 4 May 2018

This supersedes the previous flow report issued by the Department for Environment and Water (DEW) on 27 April 2018. The next report will be provided on Friday 11 May 2018.

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 3.5 GL/day and will decrease to around 3.1 GL/day during the coming week. It comprises:

- normal May Entitlement Flow of 3.0 GL/day;
- plus environmental water; and
- interstate trade adjustments.

The flow over Lock 1 is approximately 2.6 GL/day and will decrease to around 2.2 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

Environmental water is being delivered to South Australia to ensure water levels in the Lower Lakes remain within the normal operating range and barrage releases continue. Environmental water is gradually being reduced from the April flow rate.

DEW is continuing discussions regarding environmental water to be delivered during 2018.

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 29 April 2018, a total of approximately 2 889 000 cubic metres of sand had been removed by dredging operations.

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. Boats equipped with echo sounders should check depths regularly. 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 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 0.52 m AHD and Lake Albert is approximately 0.54 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 0.5 m AHD and 0.6 m AHD during May.



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During the week ending 1 May 2018 total barrage releases were approximately 2.5 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, the Murray-Darling Basin Authority and the Commonwealth Environmental Water Office.

NAVIGATION ISSUES

SA Water plans to undertake maintenance work on the Lock 3 chamber, commencing on 12 June 2018. The works will take approximately 12-14 weeks to complete. Lock 3 will be closed to river vessel traffic during this period.

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.

WEIR POOL OPERATIONS

The Normal Pool Level (NPL) and Normal Operating Range (NOR) for the South Australian locks and weirs are identified in the table below.

| Weir | Normal Pool Level (NPL) m AHD | Normal Operating Range (NOR) m AHD | | |
|--------------------------|----------------------------------|---------------------------------------|--|--|
| Lock 6 - Murtho | 19.25 | 19.17 - 19.50 | | |
| Lock 5 - Renmark | 16.30 | 16.22 - 16.43 | | |
| Lock 4 – Bookpurnong | 13.20 | 13.16 - 13.50 | | |
| Lock 3 - Overland Corner | 9.80 | 9.77 - 10.02 | | |
| Lock 2 – Waikerie | 6.10 | 6.02 - 6.40 | | |
| Lock 1 – Blanchetown | 3.20 | 3.10 - 3.50 | | |

Weir and Lock 1

Remedial works to fix the seepage issue at the Lock 1 embankment have been completed. The Lock 1 water level has been reinstated to the NPL of 3.20 m AHD. Monitoring is being undertaken to ensure the structure is sound and no seepage is detected at various water levels above NPL, but within the NOR.

Weirs and Locks 6, 5 and 2

Weir pool lowering trials are being considered for:

- Lock 6 weir pool by a maximum of 0.2 m below NPL to 19.05 m AHD (May to late June);
- Lock 5 weir pool by a maximum of 0.15 m below NPL to 16.15 m AHD (end of May to early August);
 and
- Lock 2 weir pool by a maximum of 0.25 m below NPL to 5.85 m AHD (late July to end of August).

Timing of these actions may be subject to change depending on river conditions. Water level changes will be undertaken in stages, at a rate of approximately 0.02 m/day.

For further information on the proposed lowerings please click on <u>Fact Sheet</u> and scroll down to related links or you can contact Ms Jodie Woof on (08) 8595 2141 or <u>jodie.woof@sa.gov.au</u>



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RIVERINE RECOVERY CONSTRUCTION WORKS

The Riverine Recovery Project will construct environmental regulators to manage a number of wetlands between Mannum and Murtho. Construction is expected to be completed by the end of October 2018. Construction works have commenced at Big Bend, Sugar Shack, Pyap and Murtho-Wiela wetlands. During the coming months work will commence at North Caurnamont, Teal Flat, Teal Flat Hut, Silverlea, Goat Island Paringa Paddock and Woolenook Bend wetlands.

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

| River Murray Water Levels | | | | | | | | |
|---------------------------|-------------|----------------|------------------|---------------|---------------|--------------------|--|--|
| Location | River km | Normal Pool | Current Level | 1974 Flood | 1993 Flood | 2016 High Water | | |
| | Kili | Level | 2/5/2018 | Level | Level | Level | | |
| | | (m AHD) | (m AHD) | (m AHD) | (m AHD) | (m AHD) | | |
| Lock 10 | 825.0 | 30.80 | 30.87 | 33.81 | 33.32 | 32.72 | | |
| Lock 9 Kulnine | 764.8 | 27.40 | 27.31 | 30.03 | 29.44 | 28.85 | | |
| Lock 8 Wangumma | 725.7 | 24.60 | 24.32 | 27.60 | 27.19 | 26.85 | | |
| Lock 7 Rufus River | 696.6 | 22.10 | 22.02 | 25.70 | 25.24 | 24.97 | | |
| Lock 6 Murtho | 619.8 | 19.25 | 19.25 | 21.03 | 20.50 | 20.19 | | |
| Renmark | 567.4 | - | 16.25 | 18.54 | 18.04 | 17.44 | | |
| Lock 5 | 562.4 | 16.30 | 16.25 | 18.07 | 17.50 | 17.05 | | |
| Lyrup | 537.8 | - | 13.27 | 16.85 | 16.26 | 15.80 | | |
| Berri | 525.9 | - | 13.25 | 15.81 | 15.74 | 15.21 | | |
| Lock 4 | 516.2 | 13.20 | 13.24 | 15.65 | 15.08 | 14.73 | | |
| Loxton | 489.9 | - | 10.02 | 15.05 | 14.12 | 13.54 | | |
| Cobdogla | 446.9 | - | 9.87 | 13.44 | 12.38 | 11.59 | | |
| Lock 3 | 431.4 | 9.80 | 9.84 | 13.16 | 12.02 | 10.98 | | |
| Overland Corner | 425.9 | - | 6.22 | 12.73 | 11.58 | 10.41 | | |
| Waikerie | 383.6 | - | 6.26 | 11.26 | 10.24 | 9.20 | | |
| Lock 2 | 362.1 | 6.10 | 6.13 | 10.28 | 9.30 | 8.32 | | |
| Cadell | 332.6 | - | 3.39 | 9.17 | 8.08 | 7.01 | | |
| Morgan | 321.7 | - | 3.37 | 8.85 | 7.65 | 6.38 | | |
| Lock 1 Blanchetown | 274.2 | 3.20 | 3.31 | 6.81 | 5.38 | 4.46 | | |
| Swan Reach | 245.0 | 0.75 | 0.46 | 6.06 | 4.51 | 3.11 | | |
| Mannum PS | 149.8 | 0.75 | 0.48 | 3.15 | 1.90 | 1.33 | | |
| Murray Bridge | 115.3 | 0.75 | 0.45 | 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 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 <u>River Murray Inundation Maps</u>

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

| ID | RM-Flow-Report 20180504 | |
|---------------------------|---|--|
| Classification | Public I2 A2 | |
| Issued | 4 May 2018 | |
| Authority | DEW | |
| Master Document Location | R:\Water Group\RMO\WRO\04 Communications\Flow Advices\2017-18 | |
| Managed and Maintained by | River Murray Operations | |
| Author | River Murray Operations | |
| Reviewer | Director, River Murray Operations, Water Group | |

