RIVER MURRAY FLOW REPORT

Report #16/2019 Issued 10:00 am 3 May 2019

This supersedes the previous flow report issued by the Department for Environment and Water (DEW) on 18 April 2019. The next report will be provided on Friday 10 May 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.

FLOW OUTLOOK

The flow at the South Australian border is approximately 4 GL/day and will decrease to around 3.2 GL/day during the coming week. It comprises:

- normal May Entitlement Flow of 3 GL/day;
- plus environmental water; and
- interstate trade adjustments.

The flow over Lock 1 is approximately 3.3 GL/day and will decrease to around 2.2 GL/day during the coming week, depending on weather conditions and extractions.

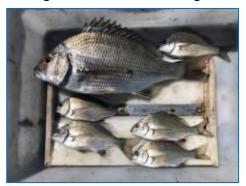
It is important to note that flow forecasts in this advice are based on the information available at the time of preparation. Advice may change as new gauging information becomes available, or due to rainfall events or changed operations upstream.

ENVIRONMENTAL WATER

Environmental water is being provided to South Australia for:

- a range of outcomes at wetlands, mostly in the Riverland via arrangements with the Nature Foundation SA, SA Murray-Darling Basin Natural Resources Management Board, Renmark Irrigation Trust (see photos), Ngarrindjeri Regional Authority, Calperum Station and Banrock Station; and
- the Lower Lakes and Coorong to:
 - o improve salinity and water quality;
 - o manage lake water levels while providing for ongoing releases to the Coorong to support fish condition and enhance foodweb productivity; and
 - o maintain a connection between the Lower Lakes and Coorong to allow for fish movement (for further details see *Barrage Operations and Water Levels in the Lower Lakes* section).

Scientists have recently detected a cohort of one year old black bream in the Coorong, which means the fish spawned in summer 2017-18 have survived another year. Commercial fishermen are also reporting that the one year old black bream are widespread throughout the entire Coorong North Lagoon.



Black bream are being monitored in the Coorong

photo courtesy of the South Australian Research and Development Institute (SARDI)



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 28 April 2019, a total of approximately 4 309 372 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 0.51 m AHD and Lake Albert is approximately 0.64 m AHD. The difference in water level is due to wind effects. Where possible, water levels are being managed to maintain a water level of above 0.55 m AHD by the end of May 2019.

During the week ending 30 April 2019 total barrage releases were approximately 8.4 GL. The barrages are currently closed to minimise the risk of seawater entering Lake Alexandrina, therefore minimising any negative salinity impacts from reverse flow events due to adverse weather conditions. The barrages are likely to be reopened in the next few days depending on the weather conditions. All fishways remain open.

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

RUN-of-RIVER SALINITY SURVEY

DEW will undertake its annual Run-of-River Salinity Survey from 6 May to 24 May.

The annual surveys have collected salinity data since 1985 to provide detailed information on salt volumes entering the River Murray. If the right conditions are available, the surveys are undertaken in the low Entitlement Flow months (below 3.5 GL/day), of May and June. The results of the surveys have provided detailed information on salt inflows to the river. This information is important for assessing the performance of Salt Interception Schemes. The survey collect salinity and locality data at five second intervals along a river reach, repeated daily over five consecutive days. This survey will be undertaken:

- Between Lock 7 and Lock 5 (6-10 May)
- Between Lock 5 and Lock 3 (13-17 May)
- Between Lock 3 and Lock 1 (20-24 May)

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 constructing environmental regulators to manage a number of wetlands between Mannum and Murtho. Construction is expected to be completed around June 2019.

SA RIVERLAND FLOODPLAINS INTEGRATED INFRASTRUCTURE PROGRAM CONSTRUCTION WORKS Katarapko

Construction works on the Katarapko Floodplain and are expected to be completed by mid-2020. As a result, some parts of the Murray River National Park will be temporarily closed for camping and other recreational activities. See the link for temporary park closure map <u>Caring for Katarapko</u>

For safety reasons, the following water access restrictions apply to river vessels and people (other than authorised personnel) until late March 2020:

- 1. Sawmill Creek, the entire length between Katarapko Creek and Eckert's Creek; and
- 2. Eckert's Creek, for 1.3 kilometres upstream of the confluence point with Katarapko Creek (ie *The Splash*).

The construction works will enable over 1120 hectares of floodplain to be inundated more regularly to improve ecological health and resilience. For more information, or to receive regular updates, about the Katarapko Floodplain Project please contact the Department for Environment and Water's Engagement Officer, Ms Ellee Eleftheriadis on 8595 2148 or email ellee.eleftheriadis2@sa.gov.au

Pike

Following the success of the recent Pike community tour, a second tour has been arranged for those who missed out. It will be held on **Sunday, 19 May 2019 from 2 pm until 5pm, leaving from Bert Dix Park**. To register please phone Ellee Eleftheriadis on 8595 2148 or email Ellee.eleftheriadis2@sa.gov.au

Regulating structures and a blocking bank on the Pike Floodplain are expected to be completed by December 2019. During the construction period, 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. 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.

NEW REQUIREMENTS FOR WATER METERS INSTALLED AFTER 1 JULY 2019

Water licence holders are encouraged to familiarise themselves with upcoming changes to metering licensed water use. These changes mean that **from 1 July 2019 new or replacement meters** must comply with national metering standards for meter selection, installation and maintenance. The requirement is for meters installed after 1 July 2019 to be:

- pattern approved;
- validated following installation by a certified person; and
- maintained in accordance with national metering standards.

Existing **meters (installed prior to 1 July 2019) do not need to comply** with the new metering requirements. These meters must continue to comply with the *South Australian Licensed Water Use Meter Policy and Specification*. For further details, next steps and links to key documents and Frequently Asked Questions visit New metering requirements or contact the Berri Water Licensing Office on (08) 8595 2053.



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 1/5/2019 (m AHD) | 1974 Flood Level (m AHD) | 1993 Flood Level (m AHD) | 2016 High Water Level (m AHD) |
|--------------------|-------------|------------------------------------|---|-----------------------------------|-----------------------------------|--|
| Lock 10 | 825.0 | 30.80 | 30.82 | 33.81 | 33.32 | 32.72 |
| Lock 9 Kulnine | 764.8 | 27.40 | 27.35 | 30.03 | 29.44 | 28.85 |
| Lock 8 Wangumma | 725.7 | 24.60 | 23.68 | 27.60 | 27.19 | 26.85 |
| Lock 7 Rufus River | 696.6 | 22.10 | 21.33 | 25.70 | 25.24 | 24.97 |
| Lock 6 Murtho | 619.8 | 19.25 | 19.25 | 21.03 | 20.50 | 20.19 |
| Renmark | 567.4 | ı | 16.31 | 18.54 | 18.04 | 17.44 |
| Lock 5 | 562.4 | 16.30 | 16.31 | 18.07 | 17.50 | 17.05 |
| Lyrup | 537.8 | - | 13.27 | 16.85 | 16.26 | 15.80 |
| Berri | 525.9 | - | 13.24 | 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 | - | 9.86 | 13.44 | 12.38 | 11.59 |
| Lock 3 | 431.4 | 9.80 | 9.82 | 13.16 | 12.02 | 10.98 |
| Overland Corner | 425.9 | - | 6.25 | 12.73 | 11.58 | 10.41 |
| Waikerie | 383.6 | - | 6.24 | 11.26 | 10.24 | 9.20 |
| Lock 2 | 362.1 | 6.10 | 6.15 | 10.28 | 9.30 | 8.32 |
| Cadell | 332.6 | ı | 3.31 | 9.17 | 8.08 | 7.01 |
| Morgan | 321.7 | 1 | 3.28 | 8.85 | 7.65 | 6.38 |
| Lock 1 Blanchetown | 274.2 | 3.20 | 3.23 | 6.81 | 5.38 | 4.46 |
| Swan Reach | 245.0 | 0.75 | 0.48 | 6.06 | 4.51 | 3.11 |
| Mannum PS | 149.8 | 0.75 | 0.46 | 3.15 | 1.90 | 1.33 |
| Murray Bridge | 115.3 | 0.75 | 0.41 | 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. For real-time data (like salinity, water levels) go to the following page:

WaterConnect Real-time water data

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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