# **SA River Murray Flow Report**



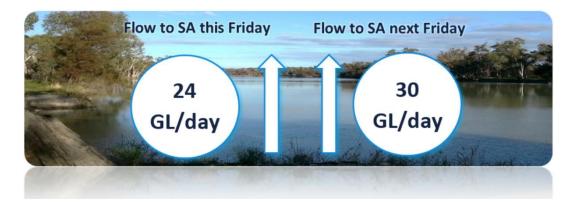


Report #26/2023

Issued 10:00 am 30 June 2023

This supersedes the previous Flow Report issued by the Department for Environment and Water (DEW) on 23 June 2023. The next Flow Report will be provided on Friday 7 July 2023.

#### Flow outlook



The flow at the South Australian border is approximately 24 GL/day and is forecast to increase to around 30 GL/day over the coming week. Airspace releases from Hume and Dartmouth dams as well as rainfall over the upper Murray catchment and Victorian tributaries (such as the Ovens catchment) over recent weeks has led to this increase in flow at the South Australian border.

The current flow at the border comprises:

- full June Entitlement Flow (3 GL/day);
- water for the environment;
- interstate trade adjustments; and
- Unregulated flow.

The flow over Lock 1 is approximately 23 GL/day and will increase to around 26 GL/day over the coming week.

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.

#### **Current water levels**

Current water levels are updated daily and can be found at the following link: <a href="https://www.waterconnect.sa.gov.au/River-Murray/SitePages/Daily.aspx">https://www.waterconnect.sa.gov.au/River-Murray/SitePages/Daily.aspx</a>

## Salinity

Increased salinity levels are common during flood recessions. The Department is closely monitoring elevated salinity levels throughout the River Murray in South Australia. In general, salinity levels across the River Murray in SA for the week were at approximately 360-620 EC. It is understood that some irrigators have recorded higher salinity readings at isolated locations. These higher readings are more likely to be observed at the bottom of the water column.

Irrigators are encouraged to monitor the daily salinity levels provided by SA Water as part of their business operations.

PIRSA has provided salinity management advice for irrigators on its website: <a href="https://www.pir.sa.gov.au/emergencies">https://www.pir.sa.gov.au/emergencies</a> and recovery/storms and floods/river murray flood 2022

### **Upstream flows**

More information on upstream conditions and forecasts can be found in the Murray-Darling Basin Authority's *Weekly Flow Report* here: <a href="https://www.mdba.gov.au/water-management/regular-reports-murray-data-storages/weekly-reports">https://www.mdba.gov.au/water-management/regular-reports-murray-data-storages/weekly-reports</a>

## **Murray Mouth**

Dredging at the Murray Mouth continues to be suspended due to high flows scouring sand out of the mouth. Conditions are continuing to be monitored, Tide Ratios analysed, and fortnightly surveys performed in order to provide accurate information to assist in determining when dredging may recommence.

SA Water spent most of May and June commissioning a new larger and more efficient dredge "Sawfish" which will replace the two pre-existing dredges when it is required.

A wider and deeper Murray Mouth will have positive environmental benefits following the flood through enabling better exchange of water between the ocean and the Murray estuary and Coorong.

### Barrage operations and water levels in the Lower Lakes

The water level in Lake Alexandrina is approximately 0.7 m AHD and Lake Albert is approximately 0.8 m AHD.

Since April 2023 DEW and SA Water have been working to maintain an average water level of 0.7 m AHD across Lake Alexandrina and Lake Albert until the end of June.

Although this is the target, there will be times when the water levels can be higher or lower than the target. At these times, the barrages will be operated to either raise or lower water levels as required. Water levels and barrage operations are monitored closely by the South Australian Government, Murray-Darling Basin Authority and Commonwealth Environmental Water Office.

Gate openings at the barrages can now be viewed on Water Data SA here: <a href="https://water.data.sa.gov.au/Data/Dashboard/75">https://water.data.sa.gov.au/Data/Dashboard/75</a>

Total daily flow releases from the barrages can also be found on Water Data SA here: <a href="https://water.data.sa.gov.au/Data/Dashboard/1">https://water.data.sa.gov.au/Data/Dashboard/1</a>

# **River Murray River Vessel Waste Disposal Stations**

As at 29 June 2023 all River Vessel Waste Disposal Stations (excluding Lock 3) are online and operational.

Additional minor repair works will be required across the stations over the next couple of months. This is expected to have a minimal impact on the operational status of the stations.

The Lock 3 River Vessel Waste Disposal Station has been out of commission since January 2020 due to a significant infrastructure failure. The nearest alternative waste facility is located at Waikerie. Normal boat waste (domestic or galley waste) can still be deposited at the Lock 3 facility at the present time.

You can report any River Vessel Waste Disposal Station issues on 1800 799 065.

If you have any questions, please contact the DEW Engagement Team on DEW.WIOCommunications@sa.gov.au

#### Levee embankments

The Department is continuing to work with PIRSA and impacted landholders and trusts to stabilise and dewater the Lower Murray Reclaimed Irrigation Area (LMRIA) levee network. LiDAR flights and data have been completed for all levees, with stability assessments and reports completed for government owned levees. DEW is working with the LiDAR surveyors to develop LiDAR profiles for each levee which will be provided to landholders.

The immediate, short-term stability works to disconnect levees from the river to enable dewatering are complete. The current focus is additional stabilisation of the damaged sections of levees, where required, to supplement or reinforce the immediate short-term works that were undertaken.

Inspection and monitoring of the levees has increased to identify potential issues early and where required, take remedial action. Structural integrity testing to assess load capacity and access requirements has been done where access was required to undertake the immediate short-term stabilisation works and dewatering. Where this hasn't been undertaken for some private levees, this will form part of the levee condition assessments in the proposed approach for longer-term requirements.

Local Irrigation Trust members and contractors should take the necessary precautions when working on levees, particularly during periods of wet weather, as the integrity of levees cannot be guaranteed following the flood event. While flood recovery works are taking place, levee banks along the River Murray are closed to the public for recreational activities. This includes for walking, fishing, and mooring of river vessels.

Questions related to dewatering and recovery of agricultural areas can be directed to the PIRSA Recovery Hotline on 1800 931 314.

More information on the stabilisation of levee banks in the LMRIA can be found on the DEW website at <a href="https://www.environment.sa.gov.au/topics/river-murray-floods/lower-murray-levee-banks">https://www.environment.sa.gov.au/topics/river-murray-floods/lower-murray-levee-banks</a>.

If you have any questions, contact the DEW Engagement Team on DEW.WIOCommunications@sa.gov.au

### **Environmental news – Custom camouflage**

Turtles are an elusive species that are known to blend in well with their habitat. Long necked turtles (*Chelodina longicollis*) were observed at Pike Floodplain and have displayed some unique algal growths, with prolific algal mats covering their entire shell.

This provides effective camouflage, may also protect them from infection and help retain moisture when basking.



Photo: Long necked turtle. Photo credit: DEW.

# **Water quality**

#### Algal blooms

It is reasonably common for algal blooms to be reported at this time of year in the Murray-Darling Basin and a number of red and amber alerts for blue-green algae have been issued by upstream authorities in recent weeks. They include:

- River Murray at Fort Courage (Amber alert)
- River Murray at Curlwaa (Amber alert)
- River Murray at Merbein (Amber alert)
- Great Darling Anabranch at Silver City Highway (Amber alert)

While no algal-blooms are currently present within South Australia, people are advised to avoid contact with any obviously green water or scums if they are encountered as they may cause skin irritations in some people.

South Australian authorities closely monitor the situation upstream and SA Water increases sampling whenever a water quality event is detected to allow for timely action. SA Water, SA Health and DEW monitor the occurrence of blue-green algal blooms in South Australia. SA Water uses the water quality data to continually adjust operations to minimise impacts to water treatment plants and other users located along the River Murray.

Water quality alerts in South Australia can be found on the SA Health website:

 $\frac{\text{https://www.sahealth.sa.gov.au/wps/wcm/connect/public+content/sa+health+internet/public+health/water+quality/water}{+\text{quality+alerts}}$ 

More information on current alerts upstream can be found on the WaterNSW website here: <a href="https://www.waternsw.com.au/water-services/water-quality/algae-alerts">https://www.waternsw.com.au/water-services/water-quality/algae-alerts</a>

### **Further information**

2022-23 **River Murray Flood event** <a href="https://www.environment.sa.gov.au/topics/river-murray-floods">https://www.environment.sa.gov.au/topics/river-murray-floods</a>

2022-23 River Murray Flood recovery

https://www.recovery.sa.gov.au/active-recoveries/river-murray-flood

https://pir.sa.gov.au/emergencies and recovery/storms and floods/river mur

ray flood 2022

Water quality alerts in SA

https://www.sahealth.sa.gov.au/wps/wcm/connect/public+content/sa+health

+internet/public+health/water+quality/water+quality+alerts

NSW **fish deaths** <u>https://www.dpi.nsw.gov.au/fishing/habitat/threats/fish-kills</u>

NSW algal alerts <a href="https://www.waternsw.com.au/water-services/water-quality/algae-alerts">https://www.waternsw.com.au/water-services/water-quality/algae-alerts</a>

**Real-time water data** at sites in SA <a href="https://water.data.sa.gov.au/">https://water.data.sa.gov.au/</a>

Current daily water levels <a href="https://www.waterconnect.sa.gov.au/River-Murray/SitePages/Daily.aspx">https://www.waterconnect.sa.gov.au/River-Murray/SitePages/Daily.aspx</a>

Daily flow and level information at key SA Water sites on the River Murray

https://www.sawater.com.au/water-and-the-environment/south-australias-

water-sources/river-sources/river-reports-daily-flow

Daily **salinity** information in SA <a href="https://www.sawater.com.au/water-and-the-environment/south-australias-">https://www.sawater.com.au/water-and-the-environment/south-australias-</a>

water-sources/river-sources/river-reports-daily-salinity

Real time information throughout the River Murray system

https://riverdata.mdba.gov.au/system-view

Whole River Murray System updates <a href="https://www.mdba.gov.au/water-management/regular-reports-murray-data-">https://www.mdba.gov.au/water-management/regular-reports-murray-data-</a>

storages/weekly-reports

Marine safety in SA <a href="https://marinesafety.sa.gov.au/">https://marinesafety.sa.gov.au/</a>

**Victorian** rainfall and river conditions <a href="http://www.bom.gov.au/vic/flood/index.shtml">http://www.bom.gov.au/vic/flood/index.shtml</a>

**NSW** rainfall and river conditions <a href="http://www.bom.gov.au/nsw/flood/">http://www.bom.gov.au/nsw/flood/</a>

Climate outlooks <a href="http://www.bom.gov.au/climate/ahead/outlooks/">http://www.bom.gov.au/climate/ahead/outlooks/</a>

Climate drivers <a href="http://www.bom.gov.au/climate/enso/">http://www.bom.gov.au/climate/enso/</a>

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