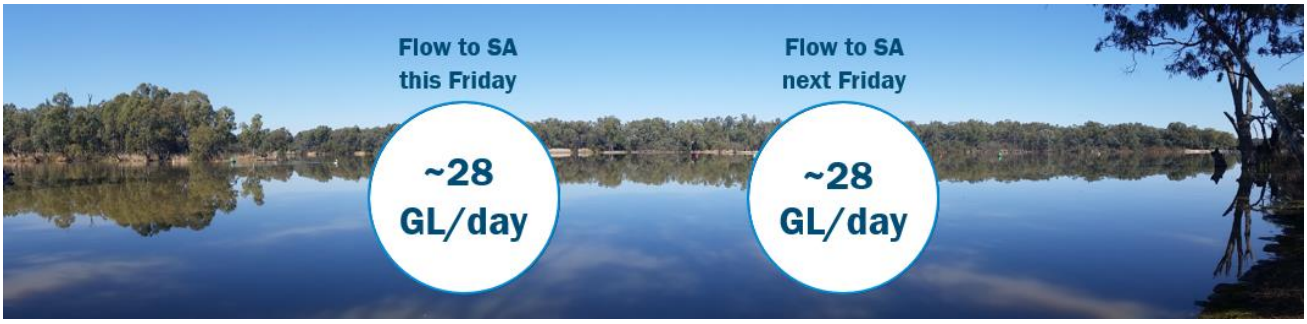
SA River Murray Flow Report

Report #43/2023

Issued 12:00 pm 27 October 2023

This supersedes the previous Flow Report issued by the Department for Environment and Water (DEW) on 20 October 2023. The next Flow Report will be provided on Friday 3 November 2023.

Flow outlook



The flow at the South Australian border is approximately 28 GL/day and will remain around 28 GL/day over the coming week **depending on river operations**.

The current flow at the border comprises the full October Entitlement Flow (5.5 GL/day) plus unregulated flow, Additional Dilution Flow (ADF), water for the environment and interstate trade adjustments.

The flow over Lock 1 is approximately 25 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.

Water levels

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

Upstream flows

The Department for Environment and Water is monitoring river levels in Victoria and New South Wales following rainfall over the recent weeks. The Murray-Darling Basin Authority has announced unregulated flow to the SA border once more due to the increase in rainfall. Forecasts are showing that rather than creating a distinct peak at the South Australian border, the rainfall event will likely hold the flow to SA up at around 25-30 GL/day for a week or two longer than was forecast before the rain fell.

In recent days the rainfall event peak passed through the River Murray at Torrumbarry and is yet to reach Swan Hill. Torrumbarry peaked close to 35 GL/day.

Streamflow from the event in the Goulburn River had a much quicker recession than expected and without follow up rainfall events the impact at the South Australian border will be small.

The department will continue to monitor the situation and provide regular information on river flows to South Australian communities.

The Murray-Darling Basin Authority is also providing the department with updates on dam operations and river flows interstate.

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

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 and fortnightly surveys performed in order to provide accurate information to assist in determining when dredging may recommence.

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

Barrage operations and water levels in the Lower Lakes

The water level in Lake Alexandrina is approximately 0.81 m AHD and Lake Albert is approximately 0.79 m AHD. The difference is due to wind effects.

The Lower Lakes are being managed to target a daily average lake level between 0.75 m AHD to 0.85 m AHD during October 2023.

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.

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

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

River Murray River Vessel Waste Disposal 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

Lower Murray Reclaimed Irrigation Area Levee embankments

Overtopped levees – 27 October 2023 update

On the 7th and 8th of September, 7 levees in the Lower Murray Reclaimed Irrigation Area (LMRIA) were impacted by wind seiche caused by strong southerly winds of up to 72 km/h. The wind seiche raised water levels by 400mm to 500mm in under 24 hours.

Two government-owned levees at Pompoota and Long Flat, and 4 privately-owned levees at Kilsby, Westbrook, Toora and Glen Lossie, overtopped, while a privately-owned levee at Placid was breached following overtopping.

Emergency stabilisation works to stop overtopping as well as further reinforcement works were undertaken where required at Kilsby, Westbrook, Toora, Glen Lossie, Pompoota and Long Flat. Works to disconnect the Placid levee from the river have commenced.

The Department of Primary Industries and Regions SA (PIRSA) is committed to completing the dewatering process at all sites impacted by the 2022-2023 River Murray flood and this latest event. Further dewatering requirements are being assessed by PIRSA and additional pumps deployed where necessary.

Field inspections of LMRIA levees continue with reinforcement of levee stabilisation works, where required, being prioritised.

Levee access

All government-owned levee banks along the Lower Murray from Mannum to Wellington remain closed to public access until further notice. While flood recovery works are being undertaken and until full condition assessments have been completed, recreational activities along the levee banks, such as walking, cycling and fishing are not allowed.

The government-owned levee banks are:

- Cowirra
- Neeta
- Wall Flat
- Pompoota
- Mypolonga
- Mobilong
- Burdett
- Long Flat
- Monteith
- Jervois

Photo: Restricted access to levee banks.

Privately-owned levees along the Lower Murray are managed and maintained by private landowners and access to their levee banks is at their discretion. However, access to private levee banks where the department is undertaking flood recovery work is not permitted.

If you have queries about levee stabilisation works or would like to discuss your particular circumstances, please contact DEW through the following channels:

Birgitte Sorensen, Manager, Levee Recovery on 8463 6942 or Birgitte.sorensen@sa.gov.au

Lisa van der Linde, Communications and Engagement Officer on 0437 313 087 or Lisa.vanderlinde@sa.gov.au

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 LMRIA levee stabilisation works can be found on the DEW website at https://www.environment.sa.gov.au/topics/river-murray-floods/lower-murray-levee-banks.

Weir pool lowering in 2023-24

Small scale weir pool manipulations at Locks 1 to 6 are underway to achieve a range of benefits for floodplain and wetland vegetation and wildlife. This includes minor weir pool lowering, within the normal operating range, at Locks 1 to 5, and a weir pool lowering of up to 16 cm below normal pool level at Lock 6.

The extent and duration of the weir pool lowering will be dependent on river conditions (flow and water quality).

The weirs will be lowered by 2-3 cm per day over 1-8 days dependent on their target height which will limit any erosion risks and means any water level increases in the downstream weir pools will be minimal.

Lowering the weir pools will assist with reducing elevated floodplain groundwater levels, flushing salt to the sea and supporting drying out of floodplains which have been inundated for an extended period of time. In stream salinity will be closely monitored ahead of, during and after any lowering event.

As planning continues, further details on these operations will be provided in future Flow Reports.

If you would like to receive email updates with further information please send your request to DEW.WIOcommunications@sa.gov.au

Environmental news – Lampreys on the move

Our favourite toothy fish – lampreys, are on the move! One of the 11 pouched lamprey trapped and tagged at the barrage fishways this August has passed Lock 10 at Wentworth last week. That's a casual 825km journey over two months for a 50cm fish.

With so many of the Murray's tributaries still flowing strongly, and water for the environment flowing to South Australia (including a small pulse of water for the environment from the Goulburn River), this spring has seen ideal conditions for lamprey migration across the southern Murray-Darling Basin.

Lamprey monitoring is conducted by SARDI Aquatic Sciences with the assistance of SA Water. Monitoring is funded by The Living Murray, a joint initiative funded by the New South Wales, Victorian, South Australian and Commonwealth Governments, coordinated by the Murray–Darling Basin Authority.



Photos: Lamprey monitoring. Photo credit: Chris Bice, SARDI Aquatic Sciences.

Water quality

Algal blooms

A number of 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 Merbein (**Amber alert**)
- River Murray at Buronga (**Amber alert**)
- River Murray at Curlwaa (**Amber alert**)
- River Murray at Lock 8 (**Amber alert**)
- Darling River at Pomona (**Red alert**)
- Darling River upstream Pomona (**Red alert**)
- Darling River at Tapio (**Amber alert**)
- Darling River at Ellersie (**Amber alert**)
- Darling River at Burtundy (**Red alert**)
- Darling River at Tolarno (**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:
https://www.sahealth.sa.gov.au/wps/wcm/connect/public+content/sa+health+internet/public+health/water+quality/water+quality+alerts

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

Salinity

Salinity levels throughout the River Murray in South Australia have returned to their typical range following elevated levels experienced during the flood recession.

Nonetheless, it is possible that some irrigators may record 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:
https://www.pir.sa.gov.au/emergencies_and_recovery/storms_and_floods/river_murray_flood_2022

Further information

River Murray high flows	https://www.environment.sa.gov.au/topics/river-murray-flows
2022-23 **River Murray Flood event**	https://www.environment.sa.gov.au/topics/river-murray-floods
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_murray_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**	https://www.dpi.nsw.gov.au/fishing/habitat/threats/fish-kills
NSW **algal alerts**	https://www.waternsw.com.au/water-services/water-quality/algae-alerts
Real-time water data at sites in SA	https://water.data.sa.gov.au/
Current daily water levels	https://www.waterconnect.sa.gov.au/River-Murray/SitePages/Daily.aspx
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	https://www.sawater.com.au/water-and-the-environment/south-australias-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	https://www.mdba.gov.au/water-management/regular-reports-murray-data-storages/weekly-reports
Marine safety in SA	https://marinesafety.sa.gov.au/
Victorian rainfall and river conditions	http://www.bom.gov.au/vic/flood/index.shtml
NSW rainfall and river conditions	http://www.bom.gov.au/nsw/flood/
Climate outlooks	http://www.bom.gov.au/climate/ahead/outlooks/
Climate drivers	http://www.bom.gov.au/climate/enso/

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