

River Murray Flow Report



Report #13/2022

Issued 10:00 am 1 April 2022

This supersedes the previous flow report issued by the Department for Environment and Water (DEW) on 25 March 2022. The next flow report will be provided on Friday 8 April 2022.

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.

Reminder consultation on the draft River Murray Water Allocation Plan closes 14 April 2022

In summary, the draft Water Allocation Plan for the River Murray Prescribed Watercourse plan proposes changes to the private carryover policy. Private carryover is a drought management measure to keep industries productive in dry years and help maintain resilient communities. Changes to the carryover policy were made in 2020 to allow rollover into a future dry year when allocations reached 100 percent, based on community feedback. Since then, the landscape board has heard that the 'rollover' and forfeiture rules for carryover are complex and difficult to understand.

The proposed changes would remove 'rollover' and forfeiture of carryover volumes and would allow carryover to be used in the year that it is granted. As part of the proposed changes, Class 3 (High Security) South Australian water entitlement holders would no longer be automatically granted carryover. To be eligible for carryover, Class 3 (High Security) South Australian water entitlement holders would be required to lodge an application.

The draft plan, factsheet, and how to provide feedback is available on the Landscape Board website <https://www.landscape.sa.gov.au/mr/water/water-allocation-plans/river-murray-wap>

Submissions can be made via email or online. Upload your submission via the [online survey](#), or email rmwap.feedback@sa.gov.au

All comments received through the consultation process will be considered when finalising the plan.

Submissions close at 5 pm on Thursday 14 April 2022.

Quarter 3 meter readings due by 30 April 2022

If you hold a water resource works approval that includes a condition that requires you to provide quarterly meter readings to the Department for Environment and Water, please be reminded that meter readings for the Quarter 3 accounting period for 2021-22 (which ends on 31 March 2022) must be recorded within the first fourteen days of April 2022 and submitted to the department by 30 April 2022.

Your meter reading can be submitted via one of the following options:

- The online meter reading form at <https://forms.business.gov.au/smartforms/sa-dfw/meter-reading-form/>; OR
- By emailing the Department for Environment and Water at DEW.waterlicensingberri@sa.gov.au

Should you require assistance in supplying your meter reading, including how to complete the online meter reading form, please call the Berri office on (08) 8595 2053 and an officer of the department will be happy to assist you.

The department's preferred approach is to encourage and facilitate voluntary compliance. However, failure to voluntarily comply with the conditions of a water resource works approval may result in an expiation notice being issued.

Flow outlook



The flow at the South Australian border is approximately 18 GL/day and will increase to around 20 GL/day over the coming week. It comprises:

- full April Entitlement Flow (4.5 GL/day);
- plus water for the environment (see below *Environmental News*);
- interstate trade adjustments;
- Additional Dilution Flow (ADF); and
- Unregulated flow.

The flow over Lock 1 is approximately 16 GL/day and will increase to around 17 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.

Environmental news

The unregulated flows which have driven the higher flows to South Australia since August 2021 are continuing but are starting to recede due to drier upstream conditions in recent weeks.

Higher rainfall in Queensland and northern NSW, which fell during early March, has produced an increase in flow in some catchments, however it will be some time before this water makes its way to the Menindee Lakes system and potentially to South Australia. WaterNSW is forecasting an additional 450 – 750 GL will arrive at Menindee Lakes by May 2022. More information can be found at <https://waterinsights.watarnsw.com.au/12104-lower-darling-regulated-river/updates>

South Australia is also receiving water for the environment from South Australia's environmental water allocation and return flows from upstream watering.

The current flows from the River Murray and upstream tributaries, through to the Coorong, will provide a range of benefits for the environment in SA, including:

- providing 'flowing water habitat' to benefit native fish, animals and plants in the River Murray channel that have adapted to a riverine environment, including supporting conditions that favour recruitment of golden perch and Murray cod. Monitoring detected golden perch eggs and larvae at various sites throughout the Lower Murray during spring/early summer and autumn surveys will indicate whether the young fish are surviving;
- allowing fish dispersal and movement into new habitats, including for young golden perch which have travelled down the Great Darling Anabranh into the Murray in recent months;
- providing for barrage releases to the Coorong to support a productive, food-rich environment for fish and birds and support salinities and water levels that encourage the reproduction and growth of keystone native plant *Ruppia tuberosa*;
- providing habitat for birds, frogs and threatened small-bodied native fish species in the Lower Lakes;
- maintaining healthy water quality, salinity and water levels in the River Murray Channel and the Lower Lakes and Coorong;
- removing excess salt from the River Murray; and
- delivering a range of outcomes to wetlands in the Riverland via arrangements with Nature Foundation Limited, Australian Landscape Trust, Accolade Wines Ltd and the Murraylands and Riverland Landscape Board.

Environmental watering stakeholder surveys

Thank you to everyone who provided input into the Pike and Katarapko floodplain stakeholder surveys, we appreciate your time, please note that they are now closed.

To ensure you receive updates on future watering events and don't miss any information, please email Engagement Officer Ellee Eleftheriadis ellee.eleftheriadis2@sa.gov.au with your contact details so we can update our system for future communications

If you have any questions or concerns relating to the floodplain watering events, or would like to get in touch relating to any questions on River Murray management, please email Ellee Eleftheriadis at ellee.eleftheriadis2@sa.gov.au

Black bream baby boom!

Last week, monitoring by SARDI Aquatic Sciences captured hundreds of tiny baby black bream in the North Lagoon of the Coorong, all around the size of a five cent coin. Researchers believe that spring/summer flows from the River Murray have created ideal spawning and nursery conditions in the Coorong. Data is still being analysed, but this finding is extremely encouraging for the future of the Coorong black bream population.

Coorong fish monitoring is managed by the Department for Environment and Water, and funded by The Living Murray program, a joint initiative of the New South Wales, Victorian, South Australian and Commonwealth governments coordinated by the Murray-Darling Basin Authority.



Figure 1: SARDI Aquatic Sciences staff monitoring black bream in the Coorong (A. Rumbelow)



Figure 2: Baby black bream found in the Coorong (A. Rumbelow)

Water quality – Algal blooms

During late March, WaterNSW issued several alerts for blue-green algae at various locations along the Murray and Lower Darling Rivers. They include:

- Murray River at Lock 8 (amber alert) ;
- Murray River at Fort Courge (amber alert);
- Murray River at Merebein (amber alert); and
- Murray River at Buronga (amber alert);
- Lower Darling River at Burtundy (red alert);
- Menindee Lakes (red alert).

Amber alerts indicate that blue-green algae may be multiplying and water may have a green tinge and musty or organic odour. This water should be considered unsuitable for potable use.

Red alerts indicate that the public should avoid coming into physical contact with untreated water at the site until the alert warning is lifted.

Further information on the alert can be found on the WaterNSW website: <https://www.waternsw.com.au/water-quality/algae>

Ongoing water quality sampling has detected low levels of blue-green algae in the River Murray of South Australia. These localised detections don't currently represent a health hazard.

As a standard and precautionary measure, SA Health encourages people to avoid contact with obvious green discoloured water, as it may cause skin irritations.

Some level of blue-green algae on a large open water source like the River Murray is normal for this time of year, when weather conditions are favourable for growth. SA Water, SA Health and DEW will continue to monitor the situation upstream and will take appropriate mitigation measures, as well as provide notification to the community, as needed.

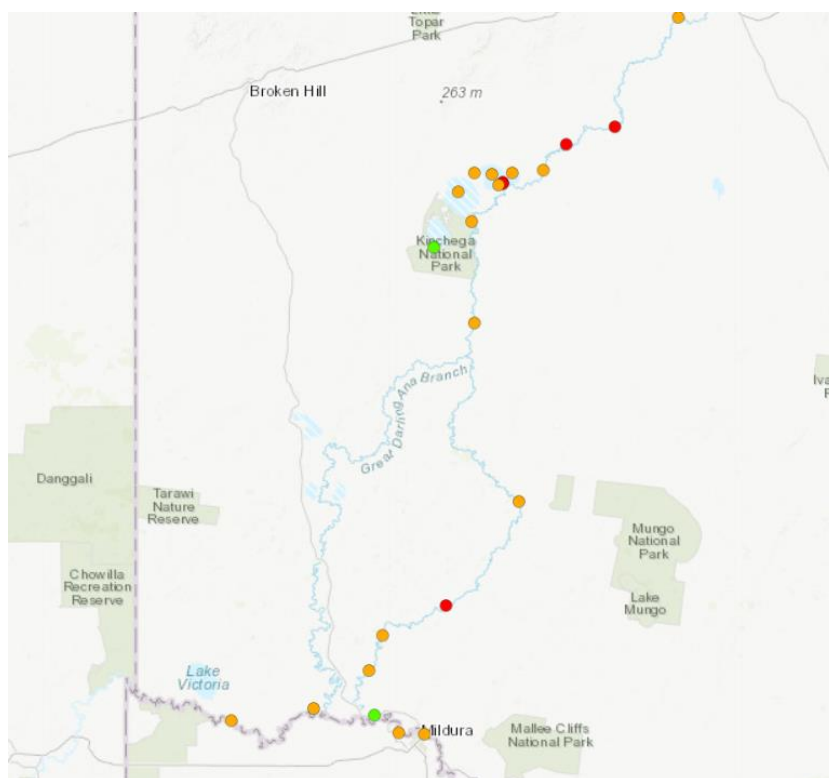


Figure 3: Map of algal alerts on the Lower Darling and Murray Rivers as issued by WaterNSW (Snapshot taken 28/3/22 at <https://www.waternsw.com.au/water-quality/algae#stay>)

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. At 27 March 2022, a total of approximately 8,149,676 m³ of sand has been removed from the Murray Mouth. Currently only one dredge is operating due to mechanical issues; the remaining dredge is operating in the Tauwitchere channel 24 hours a day, 7 days a week.

Barrage releases combined with dredging have helped to maintain flow connectivity of the River Murray Channel to the Murray Mouth and have assisted in exporting salt from the river system.

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 0.63 m AHD and Lake Albert is approximately 0.57 m AHD. The difference is due to wind effects.

As of Tuesday 29 March 2022, the weekly releases were approximately 95 GL. Total daily release volumes from the barrage can now be accessed via [Water Data SA](#) by searching for the gauge [A4261002](#).

Gate openings at the barrages during the week can be seen in Table 1.

Table 1: Number of barrage gates open each day for the week ending Tuesday 29 March 2022

Barrage (total number of gates)	23 Mar 2022	24 Mar 2022	25 Mar 2022	26 Mar 2022	27 Mar 2022	28 Mar 2022	29 Mar 2022	Objective of releases
Goolwa (120)	5	5	5	5	5	5	5	Maintain connectivity between the River Murray channel through to the Murray Mouth to support fish migration and to provide some scouring of the Goolwa Channel and Murray Mouth.
Mundoo (25)	4*	4*	4*→2*	2*	2*	2*→4*	4*	Provide some localised freshening conditions in the Mundoo channel and support fish passage.
Boundary Creek (5)	1*	1*	1*→4	4	4	4→1*	1*	Provide attractant flow adjacent the fish way to support fish passage and to flush algae and sediments from downstream of the barrage.
Ewe Island (110)	0	0	0	0	0	0	0	Releases will help push fresher water down the Coorong to assist lowering salinity levels and provide habitat diversity.
Tauwitchere (319)	30	30	30	30	30	30	30	
Fishways	Fishways at all barrages and at Hunters Creek (11 in total) were open during the entire week							Provide for fish passage between the Coorong and Lower Lakes.

*Automated gate utilised to maximise delivery to Coorong and avoid reverse flows.

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, Murray-Darling Basin Authority and Commonwealth Environmental Water Office.

River Vessel Waste Disposal Stations

The Lock 3 River Vessel Waste Disposal Station is currently out of commission due to an infrastructure failure. Investigations are currently underway to replace the station. In the interim, river vessel users can contact Riverland Tank and Drain directly on 0412 839 392 for emptying of black and grey water in the Lock 3 area. Alternatively they can utilise the nearest alternative waste facility located at Waikerie. Normal boat waste (domestic or galley waste) can still be deposited at the Lock 3 facility at the present time.

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 to Murray Bridge.

Location	River km	Normal Pool Level (m AHD)	Current Level 30/3/2022 (m AHD)	2016 High Water Level (m AHD)
Lock 10	825.0	30.80	30.78	32.72
Lock 9 Kulnine	764.8	27.40	27.43	28.85
Lock 8 Wangumma	725.7	24.60	24.68	26.85
Lock 7 Rufus River	696.6	22.10	22.38	24.97
Lock 6 Murtho	619.8	19.25	19.28	20.19
Renmark	567.4	-	16.34	17.44
Lock 5	562.4	16.30	16.31	17.05
Lyrup	537.8	-	13.36	15.80
Berri	525.9	-	13.27	15.21
Lock 4	516.2	13.20	13.22	14.73
Loxton	489.9	-	10.52	13.54
Cobdogla	446.9	-	-	11.59
Lock 3	431.4	9.80	9.81	10.98
Overland Corner	425.9	-	6.69	10.41
Waikerie	383.6	-	6.31	9.20
Lock 2	362.1	6.10	6.10	8.32
Cadell	332.6	-	3.60	7.01
Morgan	321.7	-	3.40	6.38
Lock 1 Blanchetown	274.2	3.20	3.20	4.46
Swan Reach	245.0	0.75	0.81	3.11
Mannum PS	149.8	0.75	0.68	1.33
Murray Bridge	115.3	0.75	0.60	1.04

Note that the above water levels may be affected by local wind conditions

Further information

The Water Data SA website is South Australia's comprehensive water information portal. For real-time data (like salinity, water levels) go to the following page: [Water Data SA](#).

Up-to-date River Murray salinity, flow and water level information can also be accessed at the SA Water and Murray-Darling Basin Authority websites:

- [Water allocation and carryover announcements](#)
- [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: [Managing Acid Sulfate Soils Research Project](#)

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](#).

[Katarapko Floodplain](#) site management

[Pike Floodplain](#) site management

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 -20220401
Classification	Public I2 A2
Issued	1 April 2022
Authority	DEW
Master Document Location	R:\Water Group\RMO\WRO\04 Communications\Flow Advices\2020-21
Managed and Maintained by	Water Infrastructure and Operations Branch
Author	Water Infrastructure and Operations Branch
Reviewer	Director, Water Infrastructure and Operations