

South Australia's River Murray Flow and Use Report - 2020-21 Reconciled Report

Issued 10 January 2022

Key Messages

- The South Australia government is committed to open and transparent water management and accounting along the length of the River Murray.
- This report is a full year summary of river flows at key locations along the River Murray in South Australia (SA), water used for critical human water needs (CHWN) and consumptive purposes and water for the environment.
- The table below shows the total reconciled river flow and water use data for 2020-21, following the end of year reconciliation and reporting under section 71 of the *Water Act 2007* (Cth). There are minor variations between the reconciled values and the preliminary totals reported at the end of the water year in the previous report. This is a result of improved information and final reconciliation of some environmental watering activities which cannot occur until after an event concludes. The remaining data is the preliminary information for each quarter as published in September 2021.
- A total of 3077.5 gigalitres (GL) flowed into SA during 2020-21, including 2615.8 GL of regulated flow delivery (including SA Entitlement, consumptive and environmental water trade) and 461.7 GL of unregulated flow which was preserved for environmental purposes. A total of 50 GL of SA's Entitlement was deferred to support CHWN in future years, noting that this subsequently spilled in early 2021-22.
- Of the 2615.8 GL of regulated flow delivered, 437.2 GL was used for general consumptive purposes (primarily irrigation) and 192.5 GL to support CHWN and town water supplies. Conveyance and water left in-river (planned environmental water) totalled 989.6 GL and 996.5 GL was regulated or held environmental water.
- The environmental water supported a number of watering activities throughout the year, benefiting key wetlands on the Pike, Katarapko and Chowilla floodplains and in the lower Murray, supporting vegetation health and providing habitat for a range of native plants and animals.
- At the Lower Lakes and Coorong, environmental water maintained a continuous flow of over 1331.8 GL through the barrages and fishways, promoting the migration of diadromous fish (e.g. congolli and common galaxias) between the Coorong and Lake Alexandrina.

Table 1 – River Murray Flow and Use in South Australia 2020-21 (GL)

	2020-21	Q1	Q2	Q3	Q4	Total - Year to Date	Final Reconciliation
Water Flows (GL)	Flow at the SA border	890.4	1072.5	710.5	404.1	3077.5	3077.5
	Regulated	428.7	1072.5	710.5	404.1	2615.8	2615.8
	Unregulated	461.7	0.0	0.0	0.0	461.7	461.7
	Flow at Lock 1	849.0	871.4	450.5	307.4	2478.3	2478.3
	Barrage release	582.1	495.5	167.6	86.6	1331.8	1331.8
Regulated Water Use / Purpose (GL)	CHWN and town water supply	53.2	44.0	50.2	45.1	192.5	192.5
	Consumptive	37.2	159.4	176.1	54.8	427.5	437.2
	Environmental water	97.8	567.3	178.7	137.2	981.0	989.6
	Conveyance / remain in-river	240.5	301.8	305.5	167.0	1014.8	996.5
	Other	0.0	0.0	0.0	0.0	0.0	0.0
	Total Regulated Water Use	428.7	1072.5	710.5	404.1	2615.8	2615.8
Deferred Water	Into Storage	0.0	0.0	23.0	27.0	50.0	50.0
	Delivered	15.2	0.0	0.0	0.0	15.2	15.2

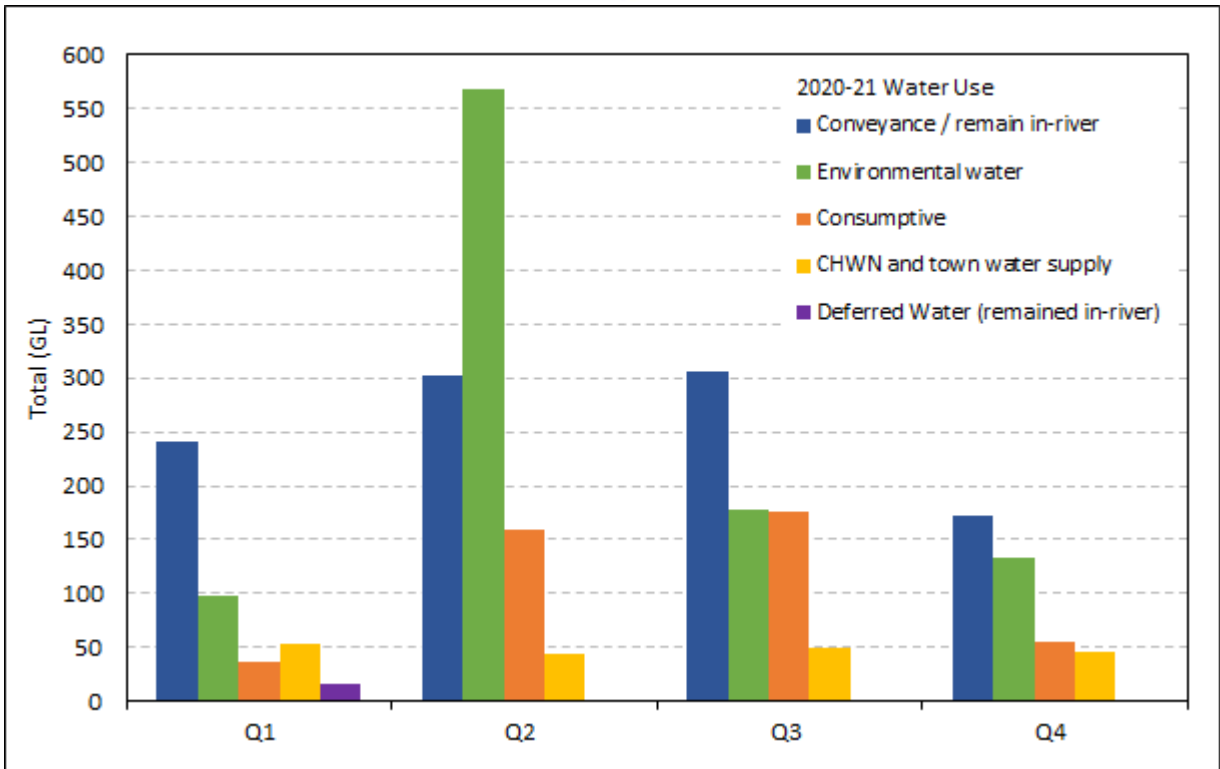


Figure 1 – Regulated River Murray Water Use in South Australia

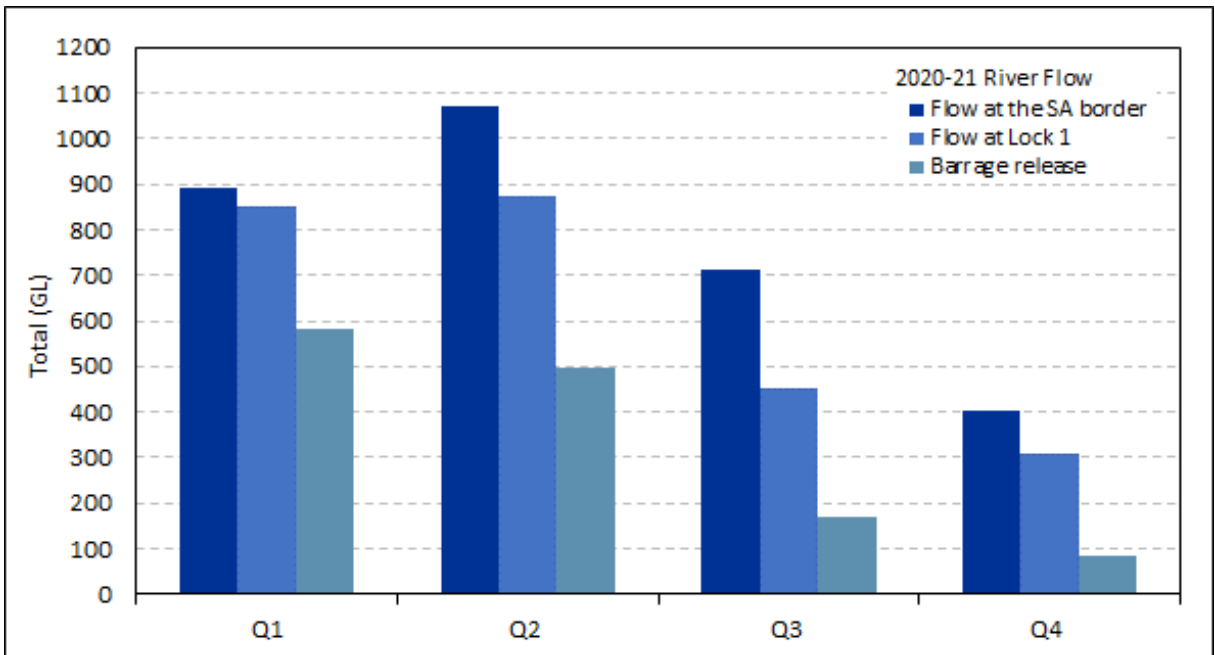


Figure 2 – River Murray Flow in South Australia

Technical Information

Water Flows: Total flow volume passing a specified location

- **Flow at the South Australian Border** – the total volume passing the SA border, as reported by the Murray-Darling Basin Authority (MDBA) and publicly available at <https://riverdata.mdba.gov.au/flow-south-australia-calculated>. This has been separated into its two components.
 - **Regulated Flow** – the total volume of regulated (planned) flow provided to SA. This includes SA Entitlement, consumptive and environmental water trade and the Lindsay River Allowance.
 - **Unregulated Flow** – the additional, uncontrolled volume, above the regulated flow to SA. This is calculated using monthly data provided by the MDBA. Information on unregulated flow events is included in SA's River Murray Flow Reports available at: <https://www.waterconnect.sa.gov.au/River-Murray/SitePages/River%20Murray%20Flow%20Reports.aspx>.
- **Flow at Lock 1** – the total volume passing over Lock 1, as reported by the MDBA and publicly available at <https://riverdata.mdba.gov.au/lock-1-downstream>.
- **Barrage Release** – the total flow over the barrages, as calculated daily by the Department for Environment and Water (DEW) at: <https://water.data.sa.gov.au/Data/Location/Summary/Location/A4261002/Interval/Latest>

Water Use / Purpose

- **Critical Human Water Needs (CHWN) and town water supply** – the total volume extracted from the River Murray for Metropolitan Adelaide, SA Country Towns and stock, domestic and industrial purposes. This includes both metered and estimated use from the quarterly account reconciliation process.
- **Consumptive use** – the total volume used for general consumptive purposes, primarily irrigation use. This includes both metered and estimated use from the quarterly account reconciliation process.
- **Environmental Water** – the total volume of held environmental water that is delivered for environmental outcomes either upstream of Lake Alexandrina or in the Lower Lakes and Coorong. This is calculated and provided monthly by the MDBA to DEW from a combination of metered, estimated and modelled data held by DEW, MDBA and the Commonwealth Environmental Water Holder. It includes all SA-held entitlements held for environmental purposes and environmental allocations traded into SA, either for a direct delivery or from a return flow event. Information on environmental watering activities is included in SA's River Murray Flow Report.
- **Conveyance / remain in-river** – water delivered for conveyance purposes and any unallocated Entitlement that remains in-river as planned environmental water. It also includes water delivered/allocated for consumptive purposes that was not taken.

Deferred Water

- **Into Storage** – water that has been deferred in accordance with clause 91 and Schedule G of the *Murray-Darling Basin Agreement*. Information on SA's deferral and water storage plans are available at <https://www.environment.sa.gov.au/topics/river-murray/south-australias-storage-right>. This is not part of the regulated flow and use volumes in the table as it is held back in an upstream storage and not delivered to SA.
- **Delivered** – deferred water delivered to SA (either ordered, forced delivery or spill) is part of the regulated flow and use volumes in the table.

Other Key Information

- **Water Use** – a preliminary assessment based on actual and estimated data and is subject to a final assessment and reconciliation at the end of water year. This data reflects the best data available at the date of issue and replaces any data provided for previous quarters in the water year.
- **Year to Date** – the cumulative flow volume and water use for the quarters reported to date. Historical annual reports on water use in South Australia can be accessed on the Murray-Darling Basin Authority's [website](#).
- **Final volume** – the total annual volume following the end of reconciliation and reporting under section 71 of the *Water Act 2007* (Cth). Historical annual reports on water use in South Australia can be accessed on the Murray-Darling Basin Authority's [website](#).
- **Data** – all values included in this report have been rounded to one decimal place. This may result in minor variations from other reported values.

Further Information

For more information on SA's water allocations or to sign up to receive the weekly River Murray Flow Report:

- Visit the [DEW website](#)
- Email DEW:RiverMurrayOps@sa.gov.au
- Subscribe to the River Murray Flow report [here](#).

To speak with someone about your water allocation or account:

- Call the water licensing office on (08) 8595 2053
- Email water licensing on DEW.WaterLicensingBerri@sa.gov.au

To download daily flow data along the River Murray:

- Visit the [MDBA Website](#)