

# South Australia's River Murray Flow and Use Report – 2021-22 Reconciled Report

May 2023

## 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 2021-22, following the end of year reconciliation and reporting under section 71 of the *Water Act 2007* (Cth). There are some 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 October 2022.
- A total of 9080.4 gigalitres (GL) flowed into SA during 2021-22, including 3765.2 GL of regulated flow delivery (including SA Entitlement, Additional Dilution Flow, consumptive and environmental water trade) and 5315.2 GL of unregulated flow, which was preserved for environmental purposes. A total of 50 GL of SA's Entitlement that was deferred to support CHWN in future years spilled in quarter one and was also preserved for the environment.
- Of the 3765.2 GL of regulated flow delivered, 440.1 GL was used for general consumptive purposes (primarily irrigation) and 168.9 GL to support CHWN and town water supplies. Conveyance and water left in-river (planned environmental water) totalled 1947.5 GL and 1208.7 GL was regulated or held environmental water.
- Environmental water supported and enhanced the benefits from the extensive unregulated flow event. It enabled prolonged and elevated in-channel flows for almost the full water year, resulting in a productive riverine environment that led to successful breeding by native fish.
- The operation of regulators on Chowilla, Pike and Katarapko floodplains in conjunction with raising Locks 4, 5 and 6 allowed over 7,629 hectares of floodplain to be inundated, supporting vegetation health and habitats.
- At the Lower Lakes and Coorong, there were significant improvements to water levels and salinities, including in the Coorong South Lagoon for *Ruppia tuberosa*, a critical component of the Coorong habitat and foodweb.

Table 1 – River Murray Flow and Use in South Australia 2021-22 (GL)

	2020-21	Q1	Q2	Q3	Q4	Total - Year to Date	Final Reconciliation
<b>Water Flows (GL)</b>	Flow at the SA border	1521.5	2848.1	2332.0	2400.0	9101.6	9080.4
	Regulated	676.5	1173.4	1145.7	790.7	3786.3	3765.2
	Unregulated	845.0	1674.7	1186.3	1609.3	5315.3	5315.2
	Flow at Lock 1	1292.6	2720.9	2146.8	2193.5	8353.8	8352.6
	Barrage release	1097.1	1871.4	1586.7	1626.8	6182.0	6161.0
<b>Regulated Water Use / Purpose (GL)</b>	CHWN and town water supply	36.8	50.6	49.6	39.7	176.7	168.9
	Consumptive	42.4	111.7	185.3	39.4	378.8	440.1
	Environmental water	219.4	384.8	328.1	263.4	1195.7	1208.7
	Conveyance / remain in-river	377.9	626.3	582.7	448.2	2035.1	1947.5
	Other	0.0	0.0	0.0	0.0	0.0	0.0
	<b>Total Regulated Water Use</b>	<b>676.5</b>	<b>1173.4</b>	<b>1145.7</b>	<b>790.7</b>	<b>3786.3</b>	<b>3765.2</b>
<b>Deferred Water</b>	Into Storage	0.0	0.0	0.0	0.0	0.0	0.0
	Delivered	50.0	0.0	0.0	0.0	50.0	50.0

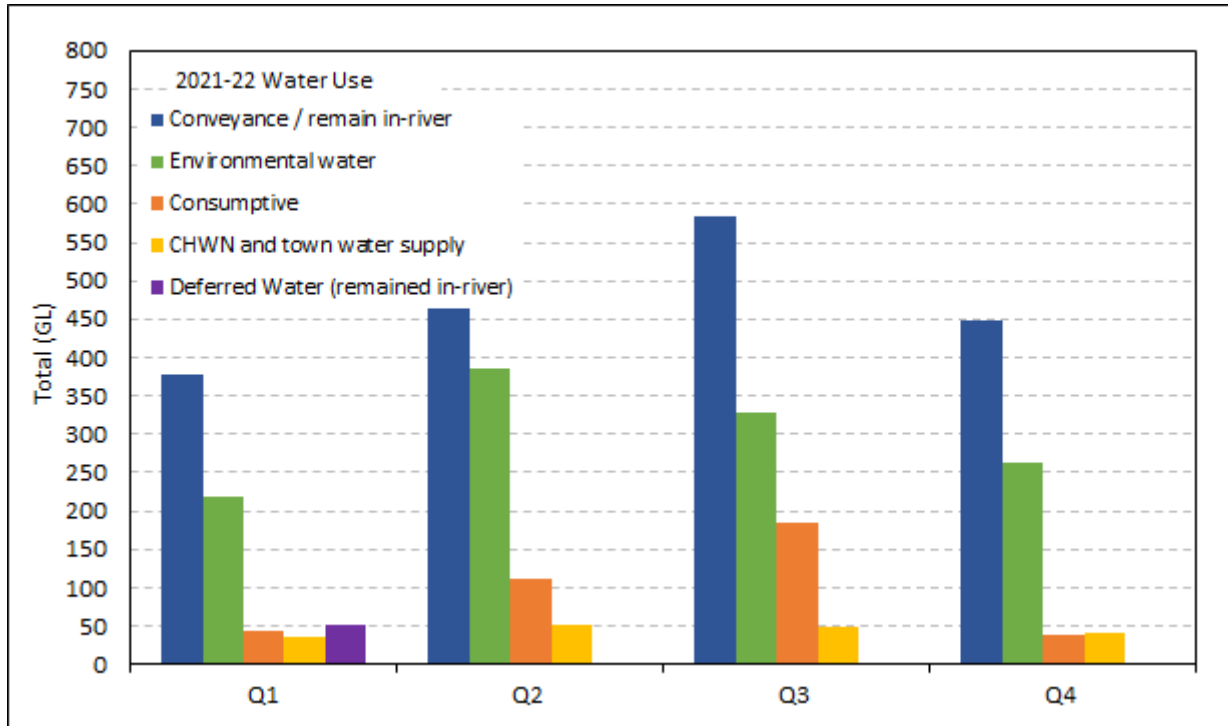


Figure 1 – Regulated River Murray Water Use in South Australia

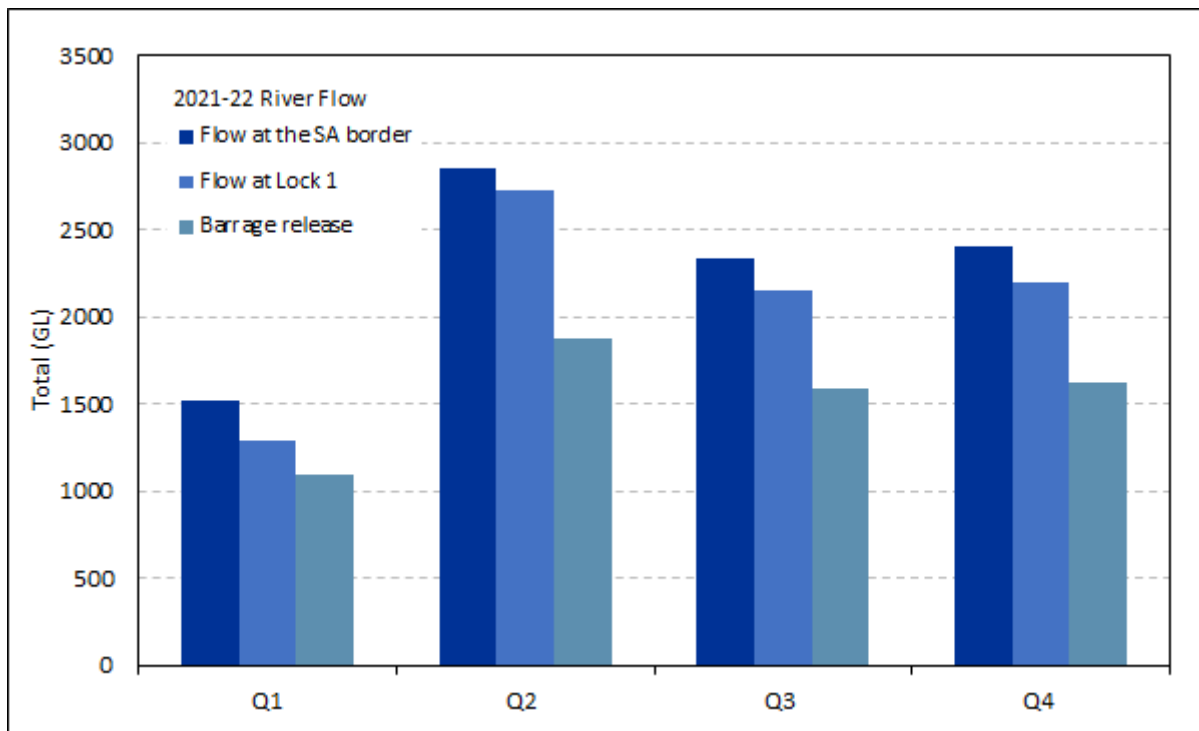


Figure 2 – River Murray Flow in South Australia

## 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, Additional Dilution Flow or other planned environmental water that remains in-river. 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](mailto: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](mailto:DEW.WaterLicensingBerri@sa.gov.au)

To download daily flow data along the River Murray:

- Visit the [MDBA Website](#)