

27 April 2018

Carolyn Lee  
Director  
Murray-Darling Basin Royal Commission  
Level 9 East, 50 Grenfell Street  
ADELAIDE SA 5000

Dear Ms Lee

### **Murray-Darling Basin Royal Commission – Submission**

Thank you for the invitation to make a submission to the Murray-Darling Basin Royal Commission. This submission sets out information in relation to water allocations that apply to SA Water. I have also taken the opportunity to briefly outline SA Water's role in supporting the State Minister for Environment and Water as the Constructing Authority under the Murray-Darling Basin (M-DB) Agreement.

SA Water is a statutory public corporation owned by the South Australian Government. We provide water and sewerage services to approximately 1.7 million people in metropolitan Adelaide and regional and remote areas of the State.

### **M-DB Agreement allocations for SA Water**

This section provides context in relation to SA Water's allocation from the River Murray.

Subdivision B of the M-DB Agreement sets out the entitlements to water for individual Basin States. South Australia's entitlement is stipulated under CI 88 (a) to (c). The total sum of South Australia's monthly entitlement volumes (1,154 GL + 696 GL/year for dilution and loss) is the equivalent of 1,850 GL (SA's full entitlement flow).

On behalf of the South Australian Government, the Department of Environment and Water (DEW) is responsible for sharing SA's entitlement flow equitably among users within the State. Prescription of the River Murray water resources under the Natural Resources Management Act 2004 and the River Murray Water Allocation Plan is the mechanism which enables DEW to do this.

The Basin Plan also requires that water resource plans are developed for each of the individual water resource areas of the M-DB. The SA River Murray Water Allocation Plan has been amended as part of the review process to meet the requirements of the Basin Plan's Water Resource Plans.

The M-DB Agreement makes reference to South Australia's long-term diversion cap, which includes 650 GL over a rolling 5 year period for metropolitan Adelaide water supply (or approximately 130GL pa) and 50 GL per year for water supply to country towns. SA Water has responsibility for managing these diversions.

Combined, these diversions represent approximately 10% of total diversions to the State. For context, the irrigation sector is allocated 564GL pa or approximately 30% of the total State diversion.

The new sustainable diversion limit (SDL) arrangements, which will come into effect from 2019, will require South Australia to manage its overall diversions from the River Murray based on the agreed SDL threshold.

### River Murray Water for Metropolitan Adelaide

SA Water has four primary sources of water supply for its operations, which are listed below along with their average percentage of the total supply:

Western Mount Lofty Reservoirs	38%
River Murray	52%
Groundwater	6%
Manufactured water (desalination)	4%

SA Water balances the use of its source water supplies using a range of demand and supply, and operational models. As much as possible, SA Water will utilise water from its Western Mount Lofty Ranges (WMLR) reservoirs first, as the most cost effective source of water, for our metropolitan Adelaide customers.

Water from the River Murray is pumped to the WMLR reservoirs for storage as required. Pumping is based on meeting the 6 week expected demand and is conducted at times where the electricity market spot price is low, whenever possible, to manage the costs for customers. After water from the Mount Lofty Ranges catchment, this is the next most cost effective source of water for SA Water to supply its customers. On average, SA Water has pumped around 100 GL per annum under its metropolitan licence.

As part of the new SDL environment, the existing 650 GL five year rolling licence will transition to a Metropolitan Adelaide Climate Adjusted Licence. The new licence arrangements will see River Murray diversions linked to the level of inflow to the WMLR water supply reservoirs. In years when inflows to the WMLR reservoirs are low, additional pumping from the River Murray may be permitted. Alternatively, when WMLR inflows are average or high, less water will be required from the metropolitan licence. A permitted level of take is based on the long-term average use (100 GL/a) from the metropolitan licence. A system of credits and debits will then be applied to ensure SA Water remains within its cap over the long-term. Commencing in 2019, this new licencing system is anticipated to impact the current level of operational flexibility associated with SA Water's metropolitan licence and penalties will apply if the cap on diversions is breached.

The Water Allocation Plan for the River Murray Prescribed Watercourse, amended in 2017 in line with the M-DB's SDL requirements, now includes a framework for allocating water during dry conditions. This Dry Allocation Framework explicitly incorporates SA Water's Adelaide Desalination Plant (ADP) into how decisions for future River Murray allocations are made under dry conditions. It is intended that 50 GL of available River Murray water from SA Water's metropolitan licence will be released to holders of irrigation licences in these dry years. This will require SA Water to supply any shortfall from other water sources, such as the WMLR or the ADP.

### River Murray Water for SA country areas

SA Water holds a 50 GL entitlement on its country town's licence to supply River Murray water to regional areas. This water is piped as far as Ceduna in the west (800km). These pipelines to regional areas have been constructed as a cost-effective way to provide water when local water resources are constrained and development requires water. The economic development of regional areas is dependent on a cost effective and secure water supply.

Extension of the regional pipeline network is often the chosen augmentation option for systems where the groundwater source is under risk of decline due to reducing recharge. Pipeline extensions to Warooka/Point Turton and Orroroo are two examples of such projects. While the additional demands from these separate systems are not large, collectively they add to the demand on the River Murray country licence.

For many SA Water customers the River Murray is their only source of water.



### **Agent to the Constructing Authority**

SA Water's functions are set out in section 7 of the South Australian Water Corporation Act 1994. Other functions may be conferred on the corporation.

Non-commercial operations of SA Water are set out in the schedule to its charter under the Public Corporations Act 1993. These include the provision of constructing services to the Murray Darling Basin Authority in South Australia and upstream to Lock 9, and the management and operation of assets on behalf of the Commission. SA Water is specifically funded to perform non-commercial obligations.

The M-DB Agreement provides for the construction, operation and maintenance of "works". These include existing works such as the system of dams, weirs and barrages controlling the Murray-Darling system.

The Murray Darling Basin Act 1993 provides that the Minister (currently the Minister for the Environment and Water) is taken to be the Constructing Authority within the meaning of the M-DB Agreement. The Constructing Authority's role is to undertake works on behalf of South Australia as a Constructing Government under the Agreement. On 3 February 2006 and 19 January 2018 SA Water's Minister conferred on it the function of acting as agent for the Constructing Authority. The conferral also applied to the Department of Environment and Water (DEW).

SA Water is responsible for the construction, operation and maintenance of infrastructure related works and measures authorised under the Agreement, funded either by the Authority in accordance with the terms of the Agreement (except the programmes that DEW is responsible for), or by the Constructing Authority (River Management Programmes). In recent years these works have included:

- constructing the Chowilla environmental regulator and appurtenant works;
- implementing the changes in operation of the salt interception scheme to be more cognisant of the basin plan outcomes and actual river and aquifer conditions;
- undertaking operations of a range of environmental structures on behalf of the M-DBA in Victoria; and
- constructing six fish ways at the Goolwa barrage to allow additional fish movement as part of the overall fish management strategy of the M-DBA and partner organisations.

I trust this information is of value to the Royal Commission's work and if you have any questions about this submission in the first instance please contact Steve Kotz Manager Metropolitan Water Security, telephone

Yours sincerely

Roch Cheroux  
**Chief Executive**