

Section 71 Report for South Australia 2018-19

Surface Water and Groundwater

1. PURPOSE

This report contributes to South Australia's requirements under section 71 of the *Water Act 2007* (Cth) for surface water and groundwater for 2018-19.

The water resource plan (WRP) areas under the Basin Plan are subdivided into sustainable diversion limit (SDL) resource units for both surface water and groundwater. The information provided in this report is presented at the SDL resource unit level. All information is current at 31 December 2019.

The reporting methods and approaches used are based on the status of the relevant WRPs at 31 October 2019. Only the SA Murray Region WRP was accredited prior to this date and the methods used have been updated to reflect those in the accredited WRP.

2. WATER RESOURCE MANAGEMENT OVERVIEW FOR THE STATE

Water resource management at a State level is governed by the *Natural Resources Management Act 2004* (SA) (NRM Act). Under the NRM Act, the State Natural Resources Management Plan (NRM Plan) is the overarching management plan that covers all geographical areas that are defined by the SDL resource units. Regional NRM Plans for the South Australian Murray-Darling Basin NRM Region, South Australian Arid Lands NRM Region and the South East NRM Region then cover one or more of the SDL resource unit areas. These plans provide general policies for managing the water resources within the areas they cover.

Several areas that represent SDL resource units have been prescribed under the NRM Act and are managed under a Water Allocation Plan (WAP). Each SDL resource unit can therefore be categorised as being either prescribed or unprescribed. This description indicates the extent of water management (including monitoring and compliance) that is currently undertaken at a State level.

The SDL resource unit areas covered by this report are listed below.

Surface Water SDL Resource Units

- South Australian Non-Prescribed Areas (SS10)
- South Australian Murray (SS11)
- Marne-Saunders (SS12)
- Eastern Mount Lofty Ranges (EMLR) (SS13)

Groundwater SDL Resource Units

- Angas Bremer (GS1a) Quaternary Sediments
- Angas Bremer (GS1b) Murray Group Limestone
- Eastern Mount Lofty Ranges (GS2)
- Mallee (GS3a) Pliocene Sands
- Mallee (GS3b) Murray Group Limestone
- Mallee (GS3c) Renmark Group
- Marne Saunders (GS4a) Fractured Rock
- Marne Saunders (GS4b) Murray Group Limestone
- Marne Saunders (GS4c) Renmark Group
- Peake, Roby and Sherlock (GS5a) Unconfined
- Peake, Roby and Sherlock (GS5b) Confined
- SA Murray (GS6)
- SA Murray Salt Interception Schemes (GS7)

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Stock and Domestic

Stock and domestic take is generally unlicensed in South Australia and is authorised under section 127(1) of the NRM Act. All reported values for stock and domestic take (permitted or actual) in this report, other than the South Australian Murray (SS11), are represented by an estimated value. In the South Australian Murray (SS11), the reported values for stock and domestic take represent licensed use.

Licensed Use

Water use data for licensed take is usually metered or estimated (for example, using crop estimates where a meter is broken for all or part of the year). It is currently not possible to differentiate between all metered and estimated take within the South Australian licensing system, so licensed take is reported as a single figure. Estimated data is only a very small proportion of the overall use within any SDL resource unit. A process to separate metered use from deemed or estimated use has been implemented as part of the development of South Australian water resource plans. For 2018-19, some deemed use is included in the annual actual take figures for the SA Murray (SS11) and EMLR (SS13) surface water SDL resource units.

Conjunctive Use

There is some potential for the double accounting of take due to the conjunctive use of water for licensed and non-licensed purposes and the conjunctive use of surface water and groundwater resources in SDL resource units that contain prescribed areas. In particular:

- Extraction of groundwater into a surface water dam from where it is then used for consumptive purposes. It is possible that all or part of a volume recorded against a groundwater allocation may also be subsequently recorded against a surface water allocation.
- Non-licensed use, particularly for stock and domestic purposes, may be taken through the same meters used to record licensed use.

In both cases, the volume double accounted is likely to be small.

State-wide Authorisations for Prescribed Areas

Several state-wide authorisations under section 128 of the NRM Act authorise the take of water in prescribed water resource areas without a licence for the following purposes:

- underground water in the course of any operation or activity reasonably necessary for, or incidental to the drilling, construction or testing of a hydrocarbon exploration well pursuant to section 11 of the *Petroleum Act 2000*;
- fire-fighting;
- road making;
- for the purpose of the application of chemicals to non-irrigated crops and non-irrigation pasture and for the control of pest plants and animals;
- up to or equal to 500 kL per annum of surface water from a connected roof area; and
- native title purposes.

The volumes of water used for these purposes are variable from year to year and are extremely small compared to the licensed and stock and domestic use in these areas. The actual take for these purposes has not formally been quantified for every SDL resource unit. The exception is for the SA Murray SDL resource unit, where the volume used has been estimated at less than 0.1 GL.

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Surface Water Overview

Unprescribed Areas

The water resources within these areas are generally considered to be at a low risk from current or future development. Development is generally low due to several factors such as low water availability, high evaporation and high groundwater salinity.

South Australian Non-Prescribed Areas (SS10)

The South Australian Non-Prescribed Areas (SS10) is unprescribed and no licences have been issued, allocations have not been made and no trade is allowed. No metering or estimation of actual water use is currently undertaken. There are no environmental entitlements held in this SDL resource unit.

Prescribed Areas with a Water Allocation Plan

The water resources within these areas are under development pressure and require more active management. Water licences are issued and WAPs have been developed to sustainably manage and monitor the available resources. Licensed purposes generally include irrigation, industrial, intensive animal keeping, recreation and town water supply.

The South Australian Murray (SS11) SDL resource unit is managed under the River Murray Prescribed Watercourse WAP, the Marne-Saunders (SS12) SDL resource unit is managed under the Marne-Saunders WAP and the EMLR (SS13) SDL resource unit is managed under the EMLR WAP.

Each year, carryover is permitted under the Marne-Saunders WAP and the EMLR WAP.

Within the South Australian Murray SDL resource unit, private carryover is made available to specified entitlement holders when criteria in the River Murray WAP are met. Each April, the minimum opening allocation for the next water year is determined, based on information from the Murray-Darling Basin Authority (MDBA). If this minimum opening allocation is less than or equal to 50%, private carryover will be made available for the next water year. Private carryover was not available within this SDL resource unit in 2018-19. Carryover was made available for the 2019-20 and announced in April 2019.

Groundwater Overview

Unprescribed areas

The water resources within these areas are generally considered to be at a low risk from current or future development. Development across these areas is generally low due to several factors such as low water availability, high evaporation and high groundwater salinity.

SA Murray (GS6)

The area is not prescribed so no licences have been issued, allocations made or trade allowed. No metering or estimation of actual water use is currently undertaken. There are no environmental entitlements in this SDL resource unit.

Partially Prescribed Areas and Prescribed Areas with a Water Allocation Plan

The water resources within these areas are under development pressure and require more active management. Water licences are issued and WAPs developed to sustainably manage and monitor the available resources. Licensed purposes generally include irrigation, industrial, intensive animal keeping, recreation and town water supply.

The South Australian groundwater SDL resource units are managed under the following WAPs:

- Angas Bremer (GS1a and GS1b) and EMLR (GS2) – EMLR WAP
- Mallee (GS3a, GS3b and GS3c) – Mallee WAP

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- Marne-Saunders (GS4a, GS4b and GS4c) – Marne-Saunders WAP
- Peake-Roby-Sherlock (GS5a and GS5b) – Peake, Roby and Sherlock WAP

Carryover is permitted under the Angas Bremer (GS1), EMLR (GS2) and Marne-Saunders (GS4) WAPs only, in the relevant sub-SDL resource units where allocations are made.

Aquifer Recharge

Managed aquifer recharge is currently only undertaken within the Angas Bremer (GS1b) SDL resource unit.

Recharge occurs using allocations from two surface water SDL resource units (SS11 and SS13) but it is currently not possible to identify the source unit of the water used. The allocations are generally against irrigation licences and are not allocations specifically provided for aquifer recharge. The allocation and use of this water are accounted for in the year of injection, within the SDL resource unit of injection.

Aquifer recharged volumes are available for up to four years from the time of injection and this is reflected in annual allocations in subsequent years for this purpose. To avoid double-accounting, the MDBA advised that any subsequent allocation and use should be excluded from both the method for annual permitted take and in the calculation of annual actual use.

3. CAP COMPLIANCE

The Cap on Diversions is established and managed under Schedule E of the *Murray-Darling Basin Agreement* and is defined as a long-term limit on the volume of surface water that can be used for consumptive purposes in river valleys within the Murray-Darling Basin.

Schedule E Requirements for South Australia

There are four Cap valleys defined for South Australia under Schedule E, clause 7, each with its own long-term diversion Cap. Compliance with a long-term diversion Cap occurs on an annual basis with respect to an *annual diversion target*. Annual diversion targets are mainly derived from analytical models that represent water availability, climate and use. The average of the modelled annual diversion targets over the relevant climate sequence is the long-term diversion Cap.

Once calculated, the annual diversion targets are adjusted for permanent and temporary trade (as permitted), allocation levels, private carryover and to account for those entitlements where the purpose of use has changed from consumptive to environmental (a requirement introduced subsequent to the setting of the long-term diversion Caps). The latter adjustment for Held Environmental Water (HEW) is undertaken using a scaling approach agreed with the MDBA. Cap compliance is then assessed through comparison of the final target with the actual diversions for consumptive purposes that occurred in that year.

Metropolitan Adelaide and Associated Country Areas

The Metropolitan Adelaide and Associated Country Areas long-term diversion Cap (Metropolitan Adelaide Cap) covers diversions for water supply purposes delivered to Metropolitan Adelaide and associated country areas through the Swan Reach-Stockwell, Mannum-Adelaide and Murray Bridge-Onkaparinga pipeline systems.

Schedule E applies the following limits and conditions on diversions from the Metropolitan Adelaide Cap valley:

- Limit is 650 GL over any period of five consecutive years [clause 7(1)(a)]; and
- No part of any Entitlement created in South Australia with respect to this Cap can be used, or transferred for use, for any purpose other than use in Metropolitan Adelaide and associated country areas [clause 7(2)(a)], unless the Ministerial Council determines otherwise.

The annual diversion target is calculated as 650 GL minus the sum of diversions of the preceding four years.

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Lower Murray Swamps

The Lower Murray Swamps (LMS) diversion Cap covers diversions within the Lower Murray Reclaimed Irrigation Area (LMRIA). The LMRIA is located between the townships of Mannum and Wellington. The area was formerly a series of wetlands that were permanently connected to the River Murray but were reclaimed for irrigation in the early 1900s. The area has historically been used for dairy farming.

Schedule E applies the following limits and conditions on diversions from the LMS Cap valley:

- Annual maximum of 94.2 GL per year [clause 7(1)(b)]; and
- At least 22.2 GL of diversions are reserved for land management purposes and are not transferrable [clause 7(2)].

No Cap model is required as the annual diversion target is a fixed volumetric limit (94.2 GL) that is adjusted for Entitlement trade (permanent trade), allocation trade (temporary trade) and for held environmental water.

Country Towns

The Country Towns Cap covers diversions for South Australian Country Towns not covered by the Metropolitan Adelaide Cap. This includes towns adjacent to the River Murray as well as many in the mid-north, upper South East and on the Yorke and Eyre Peninsulas.

Schedule E limits diversions from the Country Towns Cap valley to an annual maximum of 50 GL per year [clause 7(1)(c)].

No Cap model is required as the annual diversion target is a fixed volumetric limit (50 GL) that is adjusted for allocation trade (temporary trade) and for held environmental water.

All Other Purposes

The All Other Purposes (AOP) Cap covers all other metered River Murray water extractions that are not covered under the Metropolitan Adelaide, Lower Murray Swamps and Country Towns Caps. Use includes irrigation, stock and domestic, recreation and industrial.

Schedule E limits diversions from the AOP Cap valley to a long-term average of 449.9 GL per year [clause 7(1)(d)]. The annual diversion target is determined using an accredited regression model for this valley, in accordance with Schedule E, clause 11(3). The target is then adjusted for Entitlement trade (permanent trade), allocation trade (temporary trade) and for held environmental water.

Assessment of Cap Compliance

The assessment of Cap compliance is shown in the table below. Annual diversions are below Annual Cap Targets in all four Cap valleys. The annual Cap targets are calculated using the revised and agreed Long-Term Diversion Limit Equivalence (LTDLE) Factors, which were published in January 2020.

Cap Valley	2018-19 Annual Cap Target (GL)	2018-19 Annual Diversion (GL)
Metropolitan Adelaide	326.074	157.612
Lower Murray Swamps	29.002	18.157
Country Towns	41.969	41.706
All Other Purposes	428.525	427.591
Total	825.572	645.066

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4. TRANSITION PERIOD SECTION 71 REPORT

Permitted take [s71(1)(b)]

South Australian Non-Prescribed Areas (SS10)

As defined in the SA Murray Region water resource plan that was accredited on the 20 August 2019 the annual permitted take is represented as a “fixed annual limit” that is equal to the SDL. The permitted take for the *South Australian Non-Prescribed Areas (SS10)* is fixed at 55.2 GL.

South Australian Murray (SS11)

Permitted take for the South Australian Murray SDL resource unit is defined as the sum of the annual diversion targets that are calculated based on the existing Cap on Diversions under clause 7 of Schedule E of the *Murray-Darling Basin Agreement 2008* for the Lower Murray Swamps, Country Towns and All Other Purposes components (excluding adjustments for the disposal or acquisition of held environmental water).

The annual permitted take for the Metropolitan Adelaide component is calculated using the climate-adjusted annual permitted take model for Metropolitan Adelaide that was accredited as part of the SA River Murray WRP in November 2019.

The annual permitted take is calculated using the revised and agreed Long-Term Diversion Limit Equivalence (LTDLE) Factors, which were published in January 2020.

A value of 679.98 GL has been determined as the permitted take for the SA Murray SDL resource unit, which consists of:

1. Metropolitan Adelaide = 176.100 GL
2. Lower Murray Swamps = 29.002 GL
3. Country Towns = 41.969 GL
4. All other purposes = 432.907 GL

Marne-Saunders (SS12)

The permitted take for 2018-19 for Marne-Saunders is calculated as:

$$\begin{aligned} \text{Permitted take} &= \text{Modelled watercourse and dam extractions (WRP model)} \\ &+ \text{farm dam losses (WRP model)} + \text{commercial forestry (BDL estimate)} \end{aligned}$$

The permitted take for 2018-19 is 413 ML, comprising:

1. Take from watercourses = 28 ML
2. Take from farm dams = 385 ML
 - a) Dam extractions = 269 ML
 - b) Dam losses = 116 ML (WRP model)
3. Net take by commercial forestry = 0 ML (BDL estimate)

Eastern Mount Lofty Ranges (SS13)

The permitted take for 2018-19 for the EMLR is calculated as:

$$\begin{aligned} \text{Permitted take} &= \text{Modelled watercourse and dam extractions (WRP model)} \\ &+ \text{farm dam losses (WRP model)} + \text{commercial forestry (BDL estimate)} \end{aligned}$$

The modelled watercourse and dam extractions are derived using the WRP model with 2018-19 climatic data.

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The permitted take for 2018-19 is 19492 ML, comprising:

1. Take from watercourses = 4318 ML (WRP model)
2. Take from farm dams = 11979 ML
 - a) Dam extractions = 8507 ML (WRP model)
 - b) Dam losses = 3472 ML (WRP model)
3. Net take by commercial forestry = 3195 ML (BDL estimate)

Angas Bremer (GS1a & GS1b)

The permitted take for the Angas Bremer (Quaternary Sediments) (GS1a) aquifer is a fixed annual limit equal to the SDL of 1.09 GL.

The permitted take for the Angas Bremer (Murray Group Limestone) (GS1b) is a fixed annual limit equal to the SDL of 6.57 GL (6.494 GL licensed take and 0.076 GL under basic rights).

Eastern Mount Lofty Ranges (GS2)

The permitted take for the EMLR SDL resource unit is a fixed annual limit equal to the SDL of 38.50 GL (37.8 GL licenced take and 0.7 GL take under basic rights).

Mallee (GS3a, GS3b and GS3c)

The permitted take for the Mallee (Pliocene Sands) (GS3a) aquifer is a fixed annual limit equal to the SDL of 41.4 GL.

The permitted take for the Mallee (Murray Group Limestone) (GS3b) aquifer is a fixed annual limit equal to the revised SDL of 63.6 GL.

The permitted take for the Mallee (Renmark Group) (GS3c) aquifer is a fixed annual limit equal to the SDL of 2.0 GL.

Marne-Saunders (GS4a, GS4b and GS4c)

The permitted take for the Marne-Saunders (Fractured Rock) (GS4a) aquifer is a fixed annual limit equal to the SDL of 2.09 GL (2.00 GL licenced take and 0.09 GL take under basic rights).

The permitted take for the Marne-Saunders (Murray Group Limestone) (GS4b) aquifer is a fixed annual limit equal to the SDL of 2.38 GL (2.20 GL licenced take and 0.18 GL take under basic rights).

The permitted take from the Marne-Saunders (Renmark Group) (GS4c) aquifer is a fixed annual limit equal to the SDL of 0.5 GL.

Peake-Roby-Sherlock (GS5a and GS5b)

The permitted take for the Peake-Roby-Sherlock (unconfined) (GS5a) aquifer is a fixed annual limit equal to the SDL of 3.41 GL.

The permitted take for the Peake-Roby-Sherlock (confined) (GS5b) aquifer is a fixed annual limit equal to the SDL of 2.58 GL.

SA Murray (GS6)

The annual permitted take for the SA Murray (GS6) is a fixed annual limit equal to the SDL of 64.8 GL.

SA Murray Salt Interception Schemes (GS7)

The SA Murray Salt Interception Schemes SDL resource unit incorporates the River Murray floodplain and adjacent areas, extending west from the South Australian – Victorian border to the east of Morgan. Parts of

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this SDL resource unit are contained in the Designated Area defined under the *Groundwater (Border Agreement) Act 1985 (SA)*. The area is not prescribed.

The annual permitted take for the SA Murray Salt Interception Schemes is a fixed annual limit equal to the SDL of 28.6 GL.

Actual take [s 71(1)(c)]

South Australian Non-Prescribed Areas (SS10)

Actual water use is not currently metered or estimated. The best estimate of the actual take is 23.342 GL, in accordance with the method outlined in the SA Murray Region WRP.

South Australian Murray (SS11)

Water use data for licensed take in the South Australian Murray SDL resource unit is a combination of metered and estimated (using crop estimates) data. Actual take for 2018-19 was 645.07 GL and comprised:

1. Metropolitan Adelaide = 157.61 GL
2. Lower Murray Swamps = 18.16 GL
3. Country Towns = 41.71 GL
4. All other purposes = 427.60 GL

Marne-Saunders (SS12)

Water use data for licensed take in the Marne-Saunders SDL resource unit is a combination of metered, estimated (using crop estimates) and modelled data.

Actual take for 2018-19 was 450.6 ML and comprised:

1. Take from watercourses = 23.5 ML
2. Take from farm dams = 427 ML
 - a. Dam extractions = 311.1 ML (stock, domestic and irrigation from commercial farm dams)
 - b. Dam losses = 116 ML (WRP modelled estimate)
3. Commercial plantations = 0 GL (BDL estimate)

Eastern Mount Lofty Ranges (SS13)

The actual annual take for licensed purposes in the EMLR SDL resource unit comprises metered (dam and watercourse extractions), modelled (floodplain diversions and dam losses) and BDL estimates (stock and domestic and commercial forestry take).

Water use of 14820 ML comprises:

1. Take from watercourses = 2156 ML (including 538 ML of modelled floodplain diversions)
2. Take from runoff dams = 9469 ML
 - a. Dam extractions = 5997 ML (stock, domestic and irrigation from commercial farm dams)
 - b. Dam losses = 3472 ML (WRP modelled estimate)
3. Net take by commercial forestry = 3195 ML (BDL estimate)

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Angas Bremer (GS1a and GS1b)

There was no take from the Angas Bremer (Quaternary Sediments) (GS1a) aquifer.

Water use data for licensed take from the Angas Bremer (Murray-Group Limestone) (GS1b) aquifer is a combination of metered and estimated (using crop estimates) data. Estimates are provided for non-licensed take (same values as for permitted take).

Water use from the Angas Bremer (Murray Group Limestone) (GS1b) aquifer of 1.60 GL comprises:

1. Groundwater take (water access right) = 1.53 GL
2. Stock and domestic = 0.076 GL (BDL estimate)

Eastern Mount Lofty Ranges (GS2)

Water use data for licensed take from the EMLR SDL resource unit is a combination of metered and estimated (using crop estimates) data. Estimates are provided for non-licensed take (same values as for permitted take).

Water use of 11.61 GL comprises:

1. Groundwater take (water access right) = 10.91 GL (9.42GL metered take, 1.483 GL net take by commercial plantations (BDL estimate))
2. Stock and domestic = 0.7 GL (BDL estimate)

Mallee (GS3a, GS3b and GS3c)

Water use data for licensed take from the Mallee (Murray Group Limestone) (GS3b) aquifer is a combination of metered and estimated (using crop estimates) data. Estimates are provided for non-licensed take (same values as for permitted take).

Water use of 38.66 GL comprises:

1. Groundwater take (water access right) = 36.38 GL
2. Stock and domestic = 2.278 GL (BDL estimate)

There was no take from the Mallee (Pliocene Sands) (GS3a) and Mallee (Renmark Group) (GS3c) aquifers.

Marne-Saunders (GS4a, GS4b and GS4c)

Water use data for licensed take from the Marne-Saunders (Fractured Rock (GS4a) and Murray Group Limestone (GS4b)) aquifers is a combination of metered and estimated (using crop estimates) data. Estimates are provided for non-licensed take (same values as for permitted take).

Water use from the Marne-Saunders (Fractured Rock) (GS4a) aquifer of 0.71 GL comprises:

1. Groundwater take (water access right) = 0.61 GL
2. Stock and domestic = 0.094 GL (BDL estimate)

Water use from the Marne-Saunders (Murray Group Limestone) (GS4b) aquifer of 1.43 GL comprises:

1. Groundwater take (water access right) = 1.25 GL
2. Stock and domestic = 0.176 GL (BDL estimate)

There is no take from the Marne-Saunders (Renmark Group) (GS4c) aquifer.

Peake-Roby-Sherlock (GS5a and GS5b)

Water use data for licensed take from the Peake-Roby-Sherlock (unconfined) (GS5a) and Peake-Roby-Sherlock (confined) (GS5b) aquifers is a combination of metered and estimated (using crop estimates) data. Estimates are provided for non-licensed take (same values as for permitted take).

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Water use from the Peak-Roby Sherlock (Unconfined) (GS5a) aquifer of 0.19 GL comprises:

1. Groundwater take (water access right) = 0.0 GL
2. Stock and domestic = 0.19 GL (BDL estimate)

Water use from the Peake-Roby Sherlock (Confined) (GS5b) aquifer of 1.06 GL comprises:

1. Groundwater take (water access right) = 0.65 GL
2. Stock and domestic = 0.41 GL (BDL estimate)

SA Murray (GS6)

The best estimate of the annual actual take from the SA Murray SDL resource unit is the BDL of 1.8 GL.

SA Murray Salt Interception Schemes (GS7)

All take from salt interceptions schemes is metered. The total use for 2018-19 was 12.34 GL.

Water allocations [s71(1)(d)]

South Australian Murray (SS11)

For the 2018-19 water year, there was a 100 percent allocation against water access rights (excluding those for Metropolitan Adelaide) under the Water Allocation Plan for the River Murray Prescribed Water Course. An allocation of 124% was provided for Metropolitan Adelaide, consistent with the Water Allocation Plan and Schedule E, but noting that this use is subject to a long run average limit of 100 GL per annum.

Marne-Saunders (SS12), Eastern Mount Lofty Ranges (SS13)

For the 2018-19 water year, there was a 100 percent allocation against water access rights.

Angas Bremer (Murray Group Limestone) (GS1b), Eastern Mount Lofty Ranges (GS2), Mallee (GS3a and GS3b), Marne Saunders (Fractured Rock) (GS4a), Marne Saunders (Murray Group Limestone) (GS4b), Peake Roby Sherlock (GS5a and GS5b) and SA Murray Salt Interception Schemes (GS7)

For the 2018-19 water year there was a 100 percent allocation against water access rights.

Angas Bremer (Quaternary Sediments) (GS1a) and Marne Saunders (Renmark Group) (GS4c)

For the 2018-19 water year there were no entitlements held so no allocations were made.

Other decisions that permit water to be taken [s71(1)(e)]

Allocation decisions are not normally made outside of a WAP, unless specific circumstances occur (such as drought) and / or additional authorisations are made under Section 128 of the NRM Act. No new decisions outside of any WAPs permitted water to be taken in 2018-19.

Trade details [s71(1)(f)]

South Australian Murray (SS11)

All water access entitlements and allocations can be traded within the SDL resource unit and interstate within the Murray-Darling Basin as enabled by Schedule D of the *Murray-Darling Basin Agreement 2008* except for entitlements issued for:

- water supply purposes delivered to Metropolitan Adelaide and associated country areas through the Swan Reach – Stockwell, Mannum-Adelaide and Murray Bridge-Onkaparinga pipelines
- environmental land management in the Lower Murray Swamps.

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Marne-Saunders (SS12) and Eastern Mount Lofty Ranges (SS13)

Trade is permitted under the Marne-Saunders WAP and the EMLR WAP, but within the SDL resource units only.

Angas Bremer (GS1a and GS1b), Eastern Mount Lofty Ranges (GS2), Mallee (GS3b), Marne Saunders (GS4a, GS4b and GS4c) and Peake Roby Sherlock (GS5a and GS5b)

Trade is only permitted within the aggregated individual SDL resource unit.

4. ENVIRONMENTAL WATER – HELD AND PLANNED

There are now large volumes of South Australian entitlements held for environmental purposes, as well as environmental allocations issued in New South Wales and Victoria that are delivered and used in South Australia.

At the start of 2018-19, there were 241.2 GL of held environmental water entitlements in South Australia.

During 2018-19:

- 659.0 GL of environmental allocations from interstate were traded to South Australia from the Commonwealth Environmental Water Holder, the Victorian Environmental Water Holder and The Living Murray Program;
- 4.4 GL of South Australian consumptive allocations were used for environmental purposes;
- 743.0 GL of allocations were used for environmental purposes; and
- 158.6 GL of planned environmental water was available in South Australia.

5. PROGRESS ON WATER REFORM

Please refer to South Australia's 2018-19 Basin Plan Annual Report submitted to the Department of Agriculture and Water Resources which reports against the milestones set out in Schedule A of the *National Partnership Agreement on Implementing Water Reform in the Murray-Darling Basin*.