

Sustainable Diversion Limits – Implementation and Compliance

The Murray-Darling Basin Plan requires new sustainable diversion limits to be implemented for the River Murray in South Australia. This includes a process to ensure we can meet our compliance obligations and ensure a healthy River Murray.

WHAT ARE SUSTAINABLE DIVERSION LIMITS?

The Murray-Darling Basin Plan sets sustainable diversion limits (SDLs) on how much water can be used for consumptive purposes (urban, industrial and agricultural) in the Murray-Darling Basin, in order to ensure enough water is available for the environment. These are long-term annual average limits on consumptive use that will be enforced from the 2019-20 water year onwards.

Each SDL restricts how much water can be used for consumptive purposes within a defined geographical area – called an SDL resource unit – within the Murray-Darling Basin (MDB).

HOW WAS THE SDL FOR THE RIVER MURRAY DETERMINED?

When the Basin Plan was developed, a single limit known as the **baseline diversion limit** (BDL) was established. The BDL is based on the Cap on Diversions (the Cap), which commenced in July 1997. The Cap is a long-term limit on the volume of surface water that can be used for consumptive purposes.

The BDL also includes adjustments for water recovery undertaken before 2009 (e.g. under The Living Murray program).

The SDL is calculated using the following equation:

$$\begin{aligned} \text{SDL} = & \text{Baseline Diversion Limit} \\ & - \text{Basin Plan water recovery} \\ & + \text{SDL offset} \end{aligned}$$

Under the Basin Plan, South Australia must recover a long term equivalent of 183.8 GL of water before 1 July 2019. This recovery contributes to the Basin wide target of 2,750 GL. The Basin Plan also includes a process for adjusting the volume of water to be recovered via the implementation of 'offset' projects that achieve equivalent or improved environmental outcomes with less water. This is the [SDL adjustment mechanism](#). In December 2017, a

Basin-wide SDL adjustment offset of 605 GL was determined, which reduced the amount to be recovered in South Australia by 52 GL. This reduces the South Australian water recovery target to a long term equivalent of 131.8 GL. The volume of water recovered to date means that no further water recovery will be required in South Australia to meet this target.

HOW ARE SDLs IMPLEMENTED?

The South Australian River Murray Water Resource Plan (WRP) sets out how much water can be taken annually for consumptive use in a way that meets the long-term SDL.

The South Australian River Murray WRP identifies the links between existing state level water management arrangements, such as water allocation plans, and the Basin Plan requirements. It documents the rules for allocating and using water as outlined in the River Murray Water Allocation Plan, and demonstrates how these rules will ensure that water use each year remains within the volume permitted to be taken.

HOW WILL SDLs BE ENFORCED?

SDLs will be enforced from July 2019 through the WRPs prepared by Basin states and accredited by the Australian Government's Minister for Agriculture and Water Resources by 30 June 2019.

The Basin Plan requires that SDL compliance is assessed annually through a comparison of the amount of water allowed to be taken (*annual permitted take*) and how much was actually taken (*annual actual take*).

Annual permitted take is the amount of water permitted to be taken for consumptive purposes (urban, industrial and agricultural) in a given year from an SDL resource unit.

A method for determining the annual permitted take is part of the WRP. When the method is applied over the Basin Plan period from 1895 to 2009, the annual average permitted take must be less than the SDL.



The annual permitted take is calculated at the end of each water year. In line with the Cap, annual permitted take varies depending on River Murray water availability, rainfall and temperatures. In some years, it will be higher than the long term SDL and in others it will be lower. Water trade and private carryover is also taken into account.

The WRP must show that when the method for determining the annual permitted take is applied over the Basin Plan period from 1895-2009, the annual average permitted take is less than the SDL.

Annual actual take is the volume that is actually taken for consumptive purposes from an SDL resource unit. Actual take can vary from year to year, depending on the amount of water used, traded or carried over.

At the time the Cap was set, South Australia took less River Murray water than the amount permitted by the Cap. However, it is important to note that this trend has been changing in recent years and water use is now closer to both the Cap and hence the SDL.

Each year, the difference between the permitted take and the actual take will be calculated and the difference added to a **Register of Take**. As shown in Figure 1, when annual actual take is less than annual permitted take, a credit will be registered; when annual actual take is more than annual permitted, take a debit will be registered.

The register will maintain a cumulative balance of credits and debits and this cumulative balance will be reported publicly by the MDBA each year. An example register is shown in Figure 2.

At 1 July 2019, the cumulative SDL balance will be equal to zero. From the end of the 2019-20 water year, the cumulative balance will be updated annually. As long as the cumulative balance does not reach a debit of more than 20 per cent of the SDL (around 105 GL), South Australia will be assessed as being compliant with the SDL.

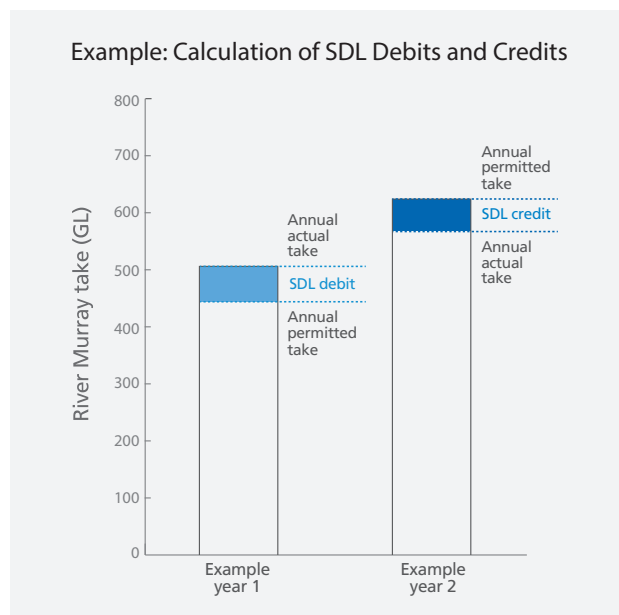


Figure 1 – Example of the relationship between annual actual take and annual permitted take, including the calculation of credits and debits.

If increased water use leads to the SDL cumulative balance reaching a debit of 20 per cent of the SDL, or there is a high risk that this will occur, then the Minister for Environment and Water will consult with stakeholders and take action, if necessary, to address potential non-compliance (see section 5.3.3 of the River Murray Water Allocation Plan). Any actions will seek to minimise adverse impacts for entitlement holders.

Compliance with the SDL is the responsibility of the State Government, not individual entitlement holders. Entitlement holders can use the volume allocated to them, which will be calculated according to the rules in the [River Murray Water Allocation Plan](#).

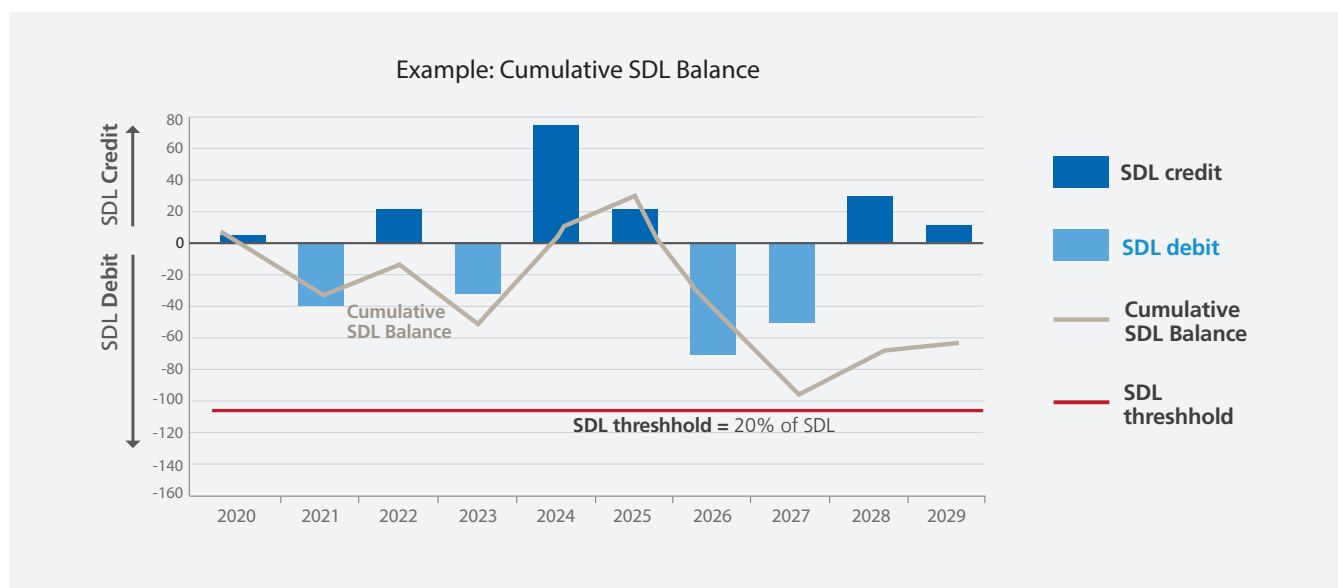


Figure 2 – Example of SDL cumulative balance



CAP FACTORS

Cap factors (or long term diversion limit equivalence factors) are a water accounting tool used to measure how much water has been recovered for the environment under the Murray–Darling Basin Plan in actual terms — not just on paper. Essentially, cap factors ensure the water recovered for the environment is 'real' water.

Across the Basin, there are over 150 different types of entitlements, and each type may have different rules for take and levels of use. Cap factors enable each type of entitlement to be converted into a common measure (or currency) so that different entitlement classes can be counted on equal terms.

The factors are determined by water use, rules for take and water availability over a specified historical time period. They are derived as part of the method for determining annual permitted take under the Basin Plan and reflect the permitted long-term average water use for a group of entitlements.

Cap factors do not affect the reliability of an entitlement nor do they change the rights of entitlement holders (these are determined by the water allocation plan). Additionally, they should not be used in assessing the future value of water entitlements as an asset. This is because they reflect permitted average use under historical conditions and are not a reflection of future conditions.

The Cap factor for the River Murray will be updated as part of accrediting the River Murray WRP, to take into account the most accurate and up-to-date information and ensure a consistent approach across the Basin.

Based on current information, the Department for Environment and Water estimates that the Cap factor for South Australian class 3 and equivalent entitlements is 0.875 for the historical period 1895 to 2009. This represents a small decrease against the factor assumed by the MDBA during the development of the Basin Plan.

Based on this Cap factor of 0.875, and given the State's share of the 605 GL SDL offset, no further recovery is required to meet the South Australia's Basin Plan water recovery target.

Further information

For further information on sustainable diversion limits and compliance visit: <https://www.mdba.gov.au/basin-plan-roll-out/sustainable-diversion-limits>.

For more information on the South Australian Water Resource Plans go to:

www.environment.sa.gov.au/wrp

If you have questions please contact:

Judith Kirk
Principal Policy Officer
Department for Environment and Water
GPO Box 1047
Adelaide SA 5001

T: (08) 8463 6914

E: dewwater@sa.gov.au

Consultation is underway on the River Murray Water Allocation Plan, including drop in sessions where you can find out more about the water resource plan.

To find out more please visit:

yoursay.sa.gov.au/river-murray-water-allocation-plan-18

