

## Surat, Warrego and Central Groundwater Sources

### Long-term average annual extraction limits and planned environmental water

The Department of Planning, Industry and Environment has updated estimates in the Surat, Warrego and Central Groundwater Sources for planned environmental water, as well as the long-term average annual extraction limits, to incorporate new knowledge and updated information. We have changed the way in which the long-term average annual extraction limits and planned environmental water are described in the water sharing plan to make the definitions more accurate.

#### Long-term average annual extraction limit

The Warrego, Surat and Central Groundwater Sources are largely artesian. That is, water levels in bores are higher than the ground surface. The department has updated the way in which the long-term average annual extraction limits are defined in these water sources in the water sharing plan, although we have maintained the intent of the 2008 limits.

The Eastern Recharge and Southern Recharge Groundwater Sources are largely non-artesian (that is, water levels in bores are lower than the ground surface). The approach to setting the long-term average annual extraction limit for these water sources differs, and is set out in the fact sheet *Eastern Recharge and Southern Recharge Groundwater Sources: Long-term average annual extraction limits and planned environmental water*, found here: [www.industry.nsw.gov.au/gab-groundwater-water-sources-components-for-consultation](http://www.industry.nsw.gov.au/gab-groundwater-water-sources-components-for-consultation)

#### The limits in the 2008 water sharing plan

The long-term average annual extraction limits in the 2008 plan are based on the infrastructure and management rules that were in place at 1990 (the sustainable pressure estimate equivalent, or SPEE). That is, the plan provided for all forms of existing take at the start of the plan in 2008. The long-term average annual extraction limits were progressively reduced during the life of the plan. This was done as take was reduced because of the control of flows under the cap and pipe schemes (the savings). The extraction limit in the 2008 water sharing plan was defined as:

- the volume of take in 1990 plus additional extraction from 1990 to start of the plan
- minus the savings from 1990 to 1999 and
- minus 70% of the savings since 1999.

#### The limits in the 2020 water sharing plan

Since the start of the 2008 water sharing plan, new knowledge and updated information has become available. We have updated the way in which the long-term average annual extraction limits are calculated and defined in the replacement water sharing plan to reflect this improved information.

The updated extraction limits for the Surat, Warrego and Central Groundwater Sources are:

- a numeric volume (requirements for basic landholder rights, plus 2008 entitlement, plus 30% of water savings made since 1999—see table below for volumes),
- plus the volume of water that is used to convey water through inefficient water distribution systems (such as flow in open drains) to deliver domestic and stock rights,
- plus 30% of any future water savings made as part of cap and pipe projects from the commencement of the 2020 water sharing plan.

The volume of water taken to deliver basic landholder rights through inefficient water distribution systems represents the water that is in excess of the water consumed by a user under their basic landholder right (that is, uncontrolled flows out of uncapped bores or in open drains). We anticipate that this volume of water will be reduced during the life of the plan as more bores are capped and piped.

Once a bore is capped, the excess water turns into water savings and the extraction limit is reduced by 70% of the water saved, which is to be committed to the environment (30% of the water saved remains a part of the extraction limit).

**Table 1: Volumes that make up the numeric component of the extraction limits for the Surat, Warrego and Central groundwater sources**

Groundwater source	Requirements for Basic Landholder Rights (2020 Water Sharing Plan)	2008 Entitlement	30% of water savings made since 1999	LTAAEL starting volume (that is 1 July 2020)
Surat	20,400 ML/yr	7,645 ML/yr	15,401 ML/yr	<b>43,446 ML/yr</b>
Warrego	3,600 ML/yr	558 ML/yr	4,658 ML/yr	<b>8,816 ML/yr</b>
Central	3,800 ML/yr	68 ML/yr	1,325 ML/yr	<b>5,193 ML/yr</b>

## Planned environmental water in NSW

The NSW *Water Management Act 2000* requires environmental water rules be established for all water sources. Planned environmental water rules are established in water sharing plans.

Planned environmental water provisions in the water sharing plan for the Surat, Warrego and Central groundwater sources will continue to ensure that 70% of water savings made since 1999 under the cap and pipe program continue to be preserved as environmental water, as well as ensuring that 70% of future water savings are preserved.

Planned environmental water in the Great Artesian Basin Water Sharing Plan is described in the following two ways.

Firstly, the rules in groundwater water sharing plans ensure that there will be water remaining in the groundwater sources over the long-term by maintaining compliance with the long-term average annual extraction limits. These groundwater sources store large volumes of water accumulated over thousands of years from throughflow from the recharge areas. The long-term average annual

extraction limits specified in groundwater water sharing plans represent a small fraction of the water in storage. The remaining water is planned environmental water.

Secondly, the rules in groundwater water sharing plans limit the amount of water allocation in an account for an access licence that can be taken from a groundwater source in any one water year. It also limits how much unused allocation can be carried over from one water year into the next. The water sharing plans commit any unused water allocations that cannot be 'carried over' for use in subsequent water years as planned environmental water.

## Monitoring and compliance in NSW

The NSW Government and water users both have a role in protecting planned environmental water by ensuring compliance with water sharing plan rules.

Water available for extraction is managed to ensure that the volume of water taken does not exceed the water sharing plan's extraction limits over the long-term. Water sharing plans include provisions that describe how compliance with the extraction limits is monitored and assessed. When extraction exceeds an extraction limit, the total volume available for extraction can be reduced through mechanisms such as:

- available water determinations – limiting the amount of allocation credited to a water allocation account associated with a licence, and
- restricting the water allocations that can be taken, assigned under section 71T of the Act, or otherwise debited or withdrawn, from a water allocation account.

## More information

The draft NSW Great Artesian Basin Water Sharing Plan 2020 and other fact sheets are available from [www.industry.nsw.gov.au/water/plans-programs/water-sharing-plans/water-sharing-plans-on-public-exhibition/gab](http://www.industry.nsw.gov.au/water/plans-programs/water-sharing-plans/water-sharing-plans-on-public-exhibition/gab)

More information on groundwater available water determinations is available from [www.industry.nsw.gov.au/\\_\\_data/assets/pdf\\_file/0003/175935/Available-water-determinations-for-groundwater-fact-sheet.pdf](http://www.industry.nsw.gov.au/__data/assets/pdf_file/0003/175935/Available-water-determinations-for-groundwater-fact-sheet.pdf)