

April 2020

Hunter Regulated River Water Source

Water allocation fact sheet

The Department of Planning, Industry and Environment publishes water allocation statements monthly for the Hunter regulated river water source. They can be found at:

www.industry.nsw.gov.au/water/allocations-availability/allocations/statements

In response to recent queries from water users, this fact sheet has been prepared to further explain the water allocation process and answer some questions about annual allocations.

How is water allocation prioritised?

Water is allocated based on the rules in the statutory *Water Sharing Plan for the Hunter Regulated River Water Source 2016* (the Plan). The Plan assigns all current available water, plus some future assumed inflow (based on extreme dry inflow conditions) in priority order. Water to meet the environmental flow rules are a high priority, as is supply to major and local utilities, domestic and stock and high security water users.

These high priority commitments can be met in all years, provided future inflows are not worse than those historically experienced. Only once high priority commitments are assured, is the balance of remaining water allocated to general security water access license holders in the current year, up to a maximum 100 per cent of entitlement.

If a licence category starts the year without full allocation, then incremental resource improvements during the year can be applied until a full allocation is reached.

How secure is the water for high priority commitments?

All high priority water, including environmental water allowances, major utilities and towns, are currently secure to June 2022 and beyond. This assumes that at least future minimum (drought) inflows arrive and system performance and losses are as expected. If a new 'drought of record' unfolds, as was seen in recent years in many western rivers, and inflows are less than expected and/or system losses greater than forecast, drought contingency measures will be activated to ensure that critical water needs can be met.

How do allocations deal with climate change?

The current water allocations process is based on inflow variations and records over the last 100 years. If the process was instead to use the worst-case inflows under climate change predictions, then a substantially larger proportion of the storage would need to be reserved to meet higher priority commitments. This would mean that allocations to general security users would be substantially less going forward. The allocation process is designed to ensure high priority commitments in most cases, while providing a reasonable certainty of allocations for general security users.

However, the department has embarked on a program of Regional Water Strategies which uses stochastically generated data spanning thousands of years, calibrated to paleo information, to provide a larger data set for assessing future water security options. Information on this data can be found in the Greater Hunter Regional Water Strategy at: www.industry.nsw.gov.au/water/plans-programs/regional-water-strategies/greater-hunter-region

In so doing, climatic extremes can be identified, options explored and strategies developed to provide the longer-term security needed for towns and industries, while also balancing the need for a viable irrigation sector across regions.

Was too much water allocated to general security water users this year?

A resource assessment was undertaken in June 2019 and available water was allocated to licence holders in priority order on 1 July 2019. All high priority commitments received a full allocation and all carryover water was available for use, while general security licence holders received an allocation of 95 per cent of entitlement.

An over-allocation to general security licence holders would be evidenced if conditions were better than the worst drought and the department was unable to provide full allocations to high priority licence holders at the start of the following year (1 July 2020). Even with continuing low inflows into the storages, the department expects to be able to provide full allocations to all high priority needs on 1 July 2020, therefore water was correctly allocated on 1 July 2019.

What will be the opening water allocation for general security water users on 1 July 2020?

The opening general security allocation on 1 July 2020 is not yet known. It is subject to many variables, including inflows across the remainder of this water year, water user behaviour, the volume of unused account water that cannot be carried over and estimates of river operations and system losses for 2020-21. However, if very dry conditions were to persist for the remainder of this water year, starting general security allocations for 2020-21 will be low.

Would an allocation of less than 95 per cent of entitlement for general security on 1 July 2019 have guaranteed a better allocation on 1 July 2020?

There is not a one-to-one relationship - the water foregone by general security water users in one year cannot be protected for the next. Rather it becomes part of the resource to support high priority commitments at the start of the next water year, with the balance allocated to general security entitlement holders.

While there is currently no provision in the water sharing plan to defer allocation to a licence category, that is - protect that volume and allocate it later, the impacts of such an arrangement are simulated in the scenarios below.

Impacts of different allocation scenarios for general security water users

The department has simulated allocation scenarios based on several conservative assumptions. The simulations are indicative only and do not imply an allocation forecast for 1 July 2020. The results are presented in the following two tables with main assumptions being:

- All high priority commitments are fully allocated at the start of each year.
- All water users, including utilities, will maximise their carryover into next water year (2020-21).
- All water users, except general security users, will use all their available account water apart from their maximum carryover volume. Three general security water use scenarios are simulated; 65 gigalitres (GL), 80 GL and 90 GL.
- Minimum inflow and average system losses are assumed for the three months to 30 June 2020. Note: this assumption is applicable to Table 1 only.

Table 1: Simulated allocation on 1 July 2020 for general security entitlement under general security usage scenarios

	2019-20 Annual general security usage		
General security allocation 1 July 2019	65 GL	80 GL*	90 GL
95%**	4%	Nil	Nil
80%	4%	Nil	Nil
60%	4%	Nil	Nil

** Actual 1 July 2019 allocation

* Potential general security use volume of 2019-20

This table indicates that a low (4%) allocation on 1 July 2020 is likely regardless of the previous allocation on 1 July 2019, and that if usage in 2019-20 is more than 65 GL, there would be no general security allocation on 1 July 2020, based on the scenario assumptions outlined.

Therefore, future allocations are more influenced by usage in the current year than by previous water allocations. However, this only holds to a point because it is allocation that makes water available for usage. It demonstrates the socialisation of unused water across high priority commitments first, then general security water users at the start of the following water year.

Table 2: Estimated additional system inflow (GL) needed to 30 June 2020 for the allocation shown

	2019-20 Annual general security usage		
General security allocation 1 July 2020	65 GL	80 GL*	90 GL
10%	10	25	35
25%	29	44	54
50%	61	76	86

The table above shows that less usage this year reduces the need for future inflows over the next three months to achieve a given allocation. For example, at least 25 GL of inflow is required to enable a 10% allocation on 1 July 2020 if usage in 2019-20 is 80 GL.

For context, 25 GL is close to median inflow, that is, half of the years within the 1893 to 2013 inflow sequence had years where April to June produced at least this volume of inflow.

Where water sharing plan rules permit, managing water use within a year and carrying forward unused water in private accounts to the next year, remains the most effective way for water users to smooth water availability from year to year.

Further information

The next water allocation statement for the Hunter regulated river water source, with a water availability outlook for 1 July 2020 allocations, will be published in late April 2020.

Information on available water determinations and water sharing plans is available on the Department of Industry website - www.industry.nsw.gov.au/water

Subscribe [here](#) to receive the Department of Planning, Industry and Environment's monthly email update on water planning, management and reform in New South Wales.

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