NORTHERN TERRITORY GOVERNMENT

DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES

2019-20 Announced Allocations Report

Water Allocation for the Tindall Limestone Aquifer, Katherine

Announcement

In accordance with clause 32 Announced Allocations in the Water Allocation Plan for the Tindall Limestone Aquifer, Katherine 2016-19 (the Plan), I, Joanne Townsend, the Controller of Water Resources, announce that allocations for the 2019-20 water accounting year are as follows:

Licence Security	2019-20 Allocation
Total	100%
High	100%
Medium	100%
Low – Public Water Supply	0%
Low - Other	100%

Background

The Tindall Limestone Aquifer, Katherine is recharged by water that seeps down into the aquifer through the soil profile and directly through sinkholes. Water also enters the aquifer from the sandstone plateau east of Katherine. Groundwater exits the aquifer through springs and seeps along the Katherine River, maintaining the flow of the river through the dry season.

The amount of groundwater that flows into the Katherine River is determined by the balance between seasonal recharge and the water extracted from bores for consumptive beneficial uses. The Department uses an integrated groundwater and surface water model of the Katherine - Daly River Region to predict the late dry season flow each year, based on the amount of rainfall received over previous wet seasons.

The Water Allocation Plan for the Tindall Limestone Aquifer, Katherine 2016-2019 sets out the volume of water that can be extracted by licences over the coming water accounting year, according to the late dry season natural flows predicted for the Katherine River. The plan specifies that the volume of water that can be taken shall be announced each year by 1 May.

2018-19 Reasons for Decision

Seasonal modelling for the 2019-20 water accounting year predicts that the natural flow[1] in the Katherine River at the Railway Bridge on 1 November will be 1.82 cumecs (m^3/s).

Clause 21 of the Plan defines years in which modelling predicts the natural flow in the Katherine River at the Railway Bridge on 1 November is greater than 1 cumec as "normal and wet years". It is noted that modelling by the Department of Environment and Natural Resources indicates at 1 November that instantaneous flow of 1.1 cumecs 70 per cent of annual discharge from this water source represents 42,842 ML and 2 cumecs, 70 per cent of discharge from the water source represents 77,895 ML.

Under the Plan, for the predicted flow of 1.82 cumecs, the extraction limit for the Tindall Limestone Aquifer, Katherine, is 31,714 ML/year. This extraction limit includes 1,300 ML for unlicensed stock and domestic use, therefore the available extraction for all licensed use is 30,414 ML. The total of 2019-20 licensed ground water extraction licence entitlements is 34,687 ML.

The extraction limit available for licensed use is less than the total of 2019-20 licensed entitlements. Therefore in accordance with clause 32(iv)(d) of the Plan, if the extraction limit is less than the sum of the annual licensed volume for low, medium and high security licences and total security demand but greater than or equal to the sum of the licenced volume for medium, high and total security licences then:

i. The announced allocation will be 100% of the annual licensed volume for medium, high and total security licences.

ii. The announced allocation for low security licences, excluding the volume for public water supply, will be a percentage of the annual licensed volume, not exceeding 100%; and

iii. The announced allocation for low security public water supply will be reduced to zero.

In accordance with clause 32(iv)(d)(i) of the Plan, the annual announced allocation for medium, high and total security licences for the 2019-20 water accounting year will be 100%.

Clause 32(iv)(d)(ii) of the Plan states that low security licences, excluding public water supply will receive a percentage allocation of the annual licensed volume.

Low security licences, excluding public water supply, will receive an allocation of 100% of the annual licensed volume for the following reasons:

- In the 2018-19 water accounting year, low security licences for agriculture and industry beneficial uses received an annual announced allocation of 100% of the annual licensed volume. Actual use of low security licences was 2% of the total licensed volume.
- Given current extraction and development history it is unlikely that low security licence holders, who have not been extracting ground water under their licence will increase water extraction in 2019-20. Therefore there is an assessed low risk of low security licence holders substantially increasing their water use during 2019-20.

In accordance with clause 32(iv)(d)(iii) of the Plan, the annual announced allocation for low security public water supply will be reduced to zero.

The total licensed volume of ground water for public water supply is 4,076 ML/yr across total, high and low security categories. Total water use for public water supply across the combination of security categories in 2018-19 was 17% of the total licensed volume.

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[1] Natural flow is this context means the model is run as if there is no ground water extraction taking place in the system.

Reducing the annual announced allocation for low security will result in a total of 2,359 ML/yr (or 58%) of water being available for use in 2019-20 across total and high security categories. As such, reducing the annual announced allocation for low security public water supply to zero is considered unlikely to affect the water required for public water supply in 2019-20.

My decision announces an allocation for low security licence holders at 100 per cent, based on the assessed risk of licence holders increasing use to exceed the extraction limit being low. Further, my decision to announce an allocation of zero for low security public water supply is consistent with clause 32(iv)(d)(iii) of the Plan and it is not anticipated this reduction will affect public water supply needs.

JOANNE TOWNSEND
Controller of Water Resources

27 May 2019