

Big Rivers Region: Water availability update

February 2024

This Early Notice provides an outlook of water availability for 2024-25 for the forthcoming water accounting year (from 1 May 2024 - 30 April 2025) in the Katherine, Daly (Ooloo), Roper (Mataranka) Regions. This notice is part of the department's commitment to providing greater support and more timely information to water users.

Key Findings

Early indications for the 2024-25 water year (from 1 May 2024 - 30 April 2025) are that water licence allocations are **likely** to be **100 per cent** for the following water resources:

- Katherine Tindall Limestone
- Mataranka Tindall limestone
- Tindall Limestone aquifer (Flora)
- Jinduckin Formation
- Edith River
- Adelaide River
- Katherine River upstream of Tindall Limestone Aquifer Donkey camp weir

It is **possible** that the water licence allocations in the following water resource **may not be 100 per cent**:

- Ooloo Dolostone

Formal Notice

The Controller of Water Resources will formally notify licence holders of their 2024-25 licence allocation before 1 May 2024

Technical summary

The department collects a large amount of water resource information, including: rainfall, river flows, groundwater levels and water use. This information is analysed and run through ground and surface water models, to predict the behaviour of the Territory's water resources in response to rainfall and water extraction, over the coming year.

Rainfall to 4 February 2024

During this current wet season, there has been **median to well above median rainfall** across the Katherine River and the broader Douglas-Daly catchment areas. The Bureau of Meteorology climate outlook predicts **below median rainfalls** for the region for the rest of February, March and April 2024. If this happens, the wet season rain for 2023-24 would be **approximately equal to the long-term median**.

The Roper catchment area has recorded **median to above median rainfall this wet season**. The climate outlook for the Roper catchment predicts **below median rainfall** for the rest of February after the current rain event, and for March and April 2024. If this happens, the percentage of wet season rain for 2023-24 is expected to be **approximately equal to or below the long-term median**.

Groundwater

Monitoring results for the volume of groundwater in storage in October 2023 (end of the 2023 dry season) identified a slight increase compared with the same period the previous year across the region.

2024-25 Water licensing outlook

Modelling scenarios, which factor rainfall, groundwater recharge, and **extraction** (including rural stock and domestic use, and assuming 100 per cent of water licences are used) were run in early February 2024 to predict the flows in the Katherine, Daly and Roper Rivers at the end of the dry season, assuming no further rainfall occurs for the remainder of 2024. Each regional scenario is discussed below.

Katherine River:

Modelled predictions in the Katherine River indicate a '**natural**' flow rate (what the river flow would be if there was no extraction in the area) of 2.3 m³/s on 1 November 2024. The [Katherine Tindall Limestone Water Allocation Plan](#) (Katherine plan) identifies this as an 'Average' river flow scenario, which requires that 70 per cent of river flows be reserved for the environment, with 30 per cent of river flow available for extraction.

Modelling that included extraction predicted a 13 per cent reduction in flows, which meets the Katherine Plan criteria. The water licence allocations in this area are **likely** to be **100 per cent**.

Daly River:

Modelled predictions in the Daly River indicate a natural flow rate in the upper Daly of 7.4 m³/s; mid Daly of 10.7 m³/s; and lower Daly of 16.6 m³/s, at the end of the 2024 dry season. The [Ooloo Water Allocation Plan](#) sets the environmental flow requirements of 6.2 m³/s (upper), 12 m³/s (mid) and 12 m³/s (lower) respectively.

The predicted flows at upper and lower Daly meet the environmental flow requirements, however the predicted flows in the mid-Daly do not. The environmental flow requirements in this area are important for a number of reasons, including for the protection of the Pig-nosed turtle, an internationally endangered species (ICUN 2018), with the Daly River identified as having the largest, least impacted and most significant population of the species.

Where the environmental flow targets are not met, the Ooloo Plan allows up to 8 per cent of flows to be made available for extraction, with 92 per cent of river flows to be reserved for the environment and other public benefit.

Modelling that included extraction predicted a reduction in flow at Ooloo Crossing to be 18 per cent which does not meet the Ooloo Plan criteria. It is **possible** that the water licence allocations in this area **may not be 100 per cent**.

Roper River:

Modelled predictions in the Roper River indicate a natural flow rate of 3.6 m³/s at the end of the 2024 dry season. Modelling that included extraction predicted the reduction in flow to be approximately 8.9 per cent.

In absence of a water allocation plan, the Northern Territory Water Allocation Planning Framework applies, which requires no more than 20 per cent of flow be extracted for consumptive use. The predicted reduction in flows are expected to be within this limit, indicating at least 80 per cent of flow will be maintained for the environment and other public benefit. The water licence allocations in this area are **likely** to be **100 per cent**.