

Katherine-Daly-Roper Region Early Notice

March 2022

This Early Notice provides an outlook to water resource management for the forthcoming water accounting year in the Katherine, Daly, Roper Region and includes predictions on river flows and water availability for 2022. This notice is an update to the Katherine-Daly-Roper Regional Climate update published December 2021. The notice delivers on the department's commitment to providing greater support and more timely information to water users.

Rainfall

During the water accounting year beginning 1 May 2021 to 1 March 2022 for the Top End there has been above **average median rainfall** across the Katherine River and the broader Douglas-Daly catchment areas.

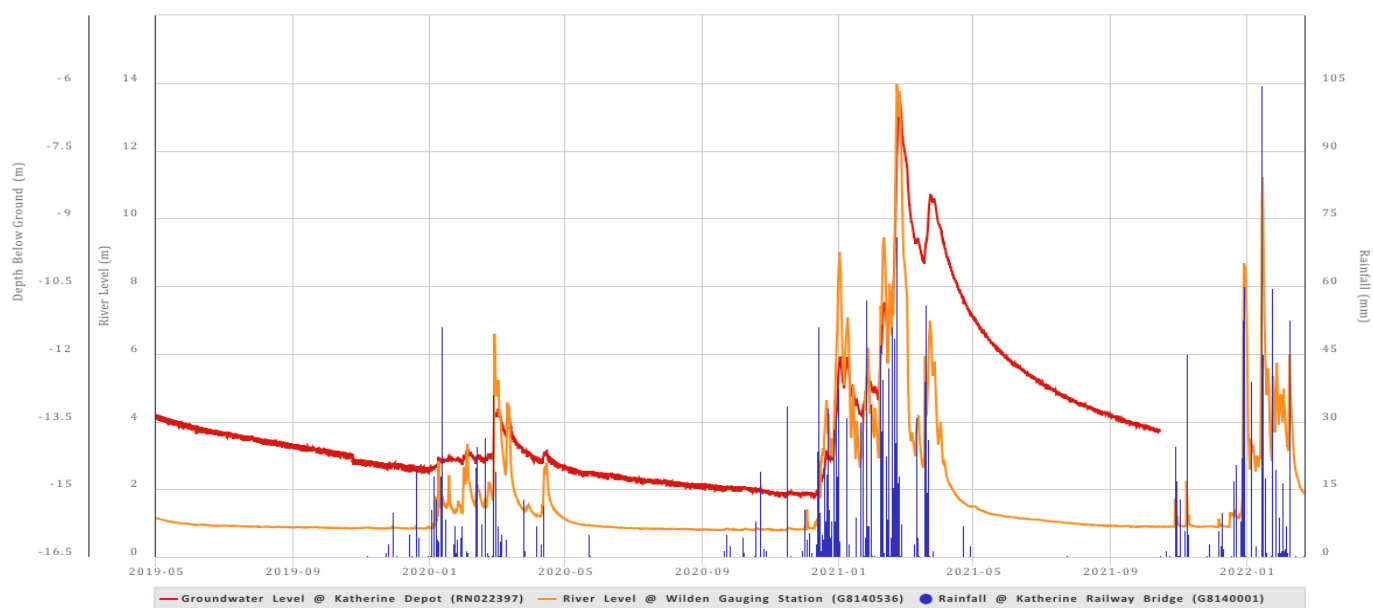
The Bureau of Meteorology climate outlook predicts a 60% chance of **exceeding average median rainfalls** in March and April 2022 for the Katherine and Douglas-Daly areas. If this happens, the percentage of wet season rain for 2021-22 would be approximately **equal to or slightly higher than the long-term median average**.

The Mataranka-Tindall catchment areas has recorded **below median rainfall**. The climate outlook for Mataranka-Tindall predicts **median rainfall** in March and **above median rainfall** in April 2022. If this happens, the percentage of wet season rain for 2021-22 is expected to be **lower than the long-term median**.

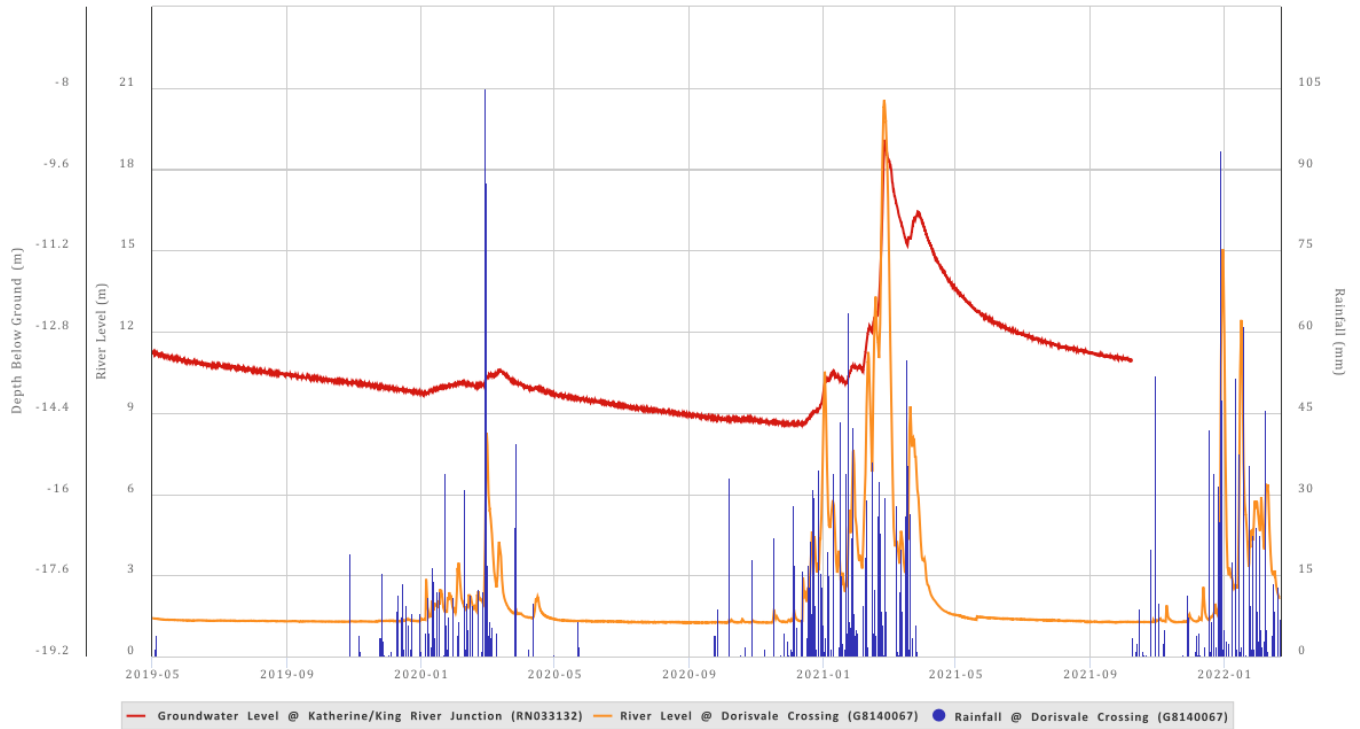
Groundwater

Monitoring of groundwater storage volumes at the end of October 2021 (end of the dry) identified a slight improvement compared with the same period the previous year. As highlighted in the graphs below, the groundwater level (the red line) has risen (or recharged) to levels above the previous year in the Katherine, Daly (Ooloo) and Roper (Mataranka) regions.

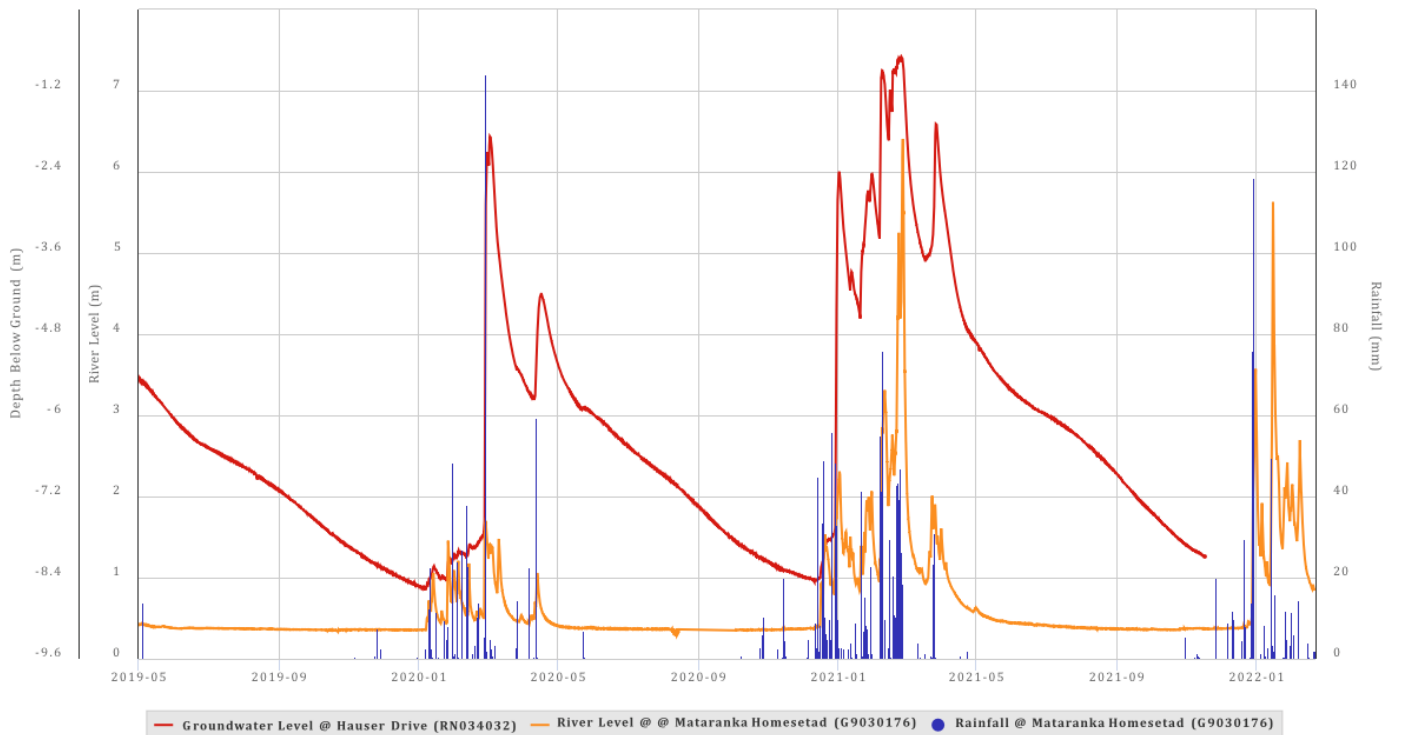
Katherine Tindall Limestone - Groundwater Levels, River Heights & Rainfall Totals



Ooloo Dolostone - Groundwater Levels, River Heights & Rainfall Totals



Mataranka Tindall Limestone - Groundwater Levels, River Heights & Rainfall Totals



2022 Announced allocation outlook

Modelling scenarios which factor rainfall, total extraction and recharge were run in early February 2022 to predict the flows in the Katherine, Daly and Roper Rivers at 1 November 2022, assuming no further rainfall will occur for the remainder of 2022. Favourable outcomes were observed across all modelled scenarios with predicted flow on 1 November 2022 expected to either meet or exceed the flow scenarios required for non-consumptive use.

Katherine River: Modelled predictions in the Katherine River indicate a natural flow rate at Wilden of 2.42 m³/s on 1 November 2022 (assuming zero rainfall for the remainder of 2022).

The Katherine Tindal Limestone Water Allocation Plan 2019-2024 (Katherine Plan) reports this level of natural flow rate as an average river flow scenario providing 70 per cent of the annual groundwater discharge reserved for non-consumptive use and 30 per cent of groundwater discharges available for extraction.

Modelling of extractions including allocations for rural stock and domestic and licensed allocations predicts a 25 per cent reduction in flows at Wilden which meets the Katherine Plan criteria.

Daly River: Modelled predictions indicate a natural flow rate at Dorisvale of 8.55 m³/s, Ooloo Crossing of 13.25 m³/s and Mount Nancar 20.00 m³/s on 1 November 2022. Modelled scenarios including 100 per cent allocations for rural stock and domestic and licensed allocations predict reductions in flow at each of these locations of 10.3%, 7.7% and 6.3% respectively.

Reductions in flow are predicted to meet the criteria in the Ooloo Dolostone Aquifer Water Allocation Plan 2019-2029 which requires 80 per cent of the annual groundwater discharge to be maintained for non-consumptive use and the remaining 20 per cent is available for extraction.

Roper River: Modelled predictions indicate a natural flow rate at Eley Homestead of 3.79 m³/s on 1 November 2022 (assuming zero rainfall for the remainder of 2022). The modelled reduction in flow including 100 per cent allocations for rural stock and domestic and licensed allocations is predicted to be 2.6%.

Applying the Northern Territory Water Allocation Planning Framework, the reduction in flows are expected to be less than 20% indicating at least 80% of flow is maintained for non-consumptive use.

Accordingly, the annual announced allocations for the 2022-23 water accounting year is **likely** to be **100 per cent** for the following water resources:

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

The Controller of Water Resources will provide advice to relevant licence holders of their 2022-23 annual announced allocation before 1 May 2022.

More information

Water allocation plans: <https://depws.nt.gov.au/water/water-management/water-allocation-plans>

Water Licensing Portal: <https://denr.nt.gov.au/water/permits-and-licences/water-licensing-portal>

Water Data Portal: <https://denr.nt.gov.au/water/water-information-systems/water-data-portal>

BOM rainfall outlook: <http://www.bom.gov.au/climate/outlooks/#/rainfall/median/weekly/0>

BOM Climate drivers: <http://www.bom.gov.au/climate/enso/>

Contact us

If you have any enquiries about this update, please contact Water Resources on 08 8999 4455 or by emailing waterresources@nt.gov.au.