

Regional Water Availability

(Annual Announced Allocations)

Background

- » NT Water Allocation Planning Framework requires 80% of water resources retained for environmental use (or as otherwise supported by a declared water allocation plan or scientific evidence)
- » Annual announced allocations apply to water resources in the Top End
- » River flows and aquifer recharge vary each year in response to wet season rainfall
- » Annual water allocations also vary each year – so that licensed extractions should not reduce river and spring flows below environmental thresholds

Plan Based Assessment

Tindall Limestone Aquifer, Katherine Water Allocation Plan

- » Annual Announced Allocations made in accordance with Clause 32 of the Plan
- » Clause 32 sets out the extraction limits for the coming water accounting year based on the predicted natural flow of the Katherine River on 1 November
- » The predicted natural flow in the Katherine River on 1 November 2016 is 1.99 m³/sec, making the extraction limit for the 2016/17 water accounting year 33,383 ML

Model Based Assessment

Ooloo Dolostone Aquifer, Katherine River, Daly River

- » Integrated surface water/ groundwater model used to evaluate extraction limit for the coming water accounting year
- » Modelled natural and altered flows resulting from extractions analysed against environmental water requirements for the Daly River (Erskine, 2004) and change limits set by the NT Water Allocation Framework for protecting river flows in the Katherine River
- » If all environmental water requirements met for full extraction of entitlements - then announced allocations are 100%.

Model Based Assessment cont...

Tindall Limestone Aquifer, Mataranka

- » Integrated surface water/ groundwater model used to evaluate extraction limit for the coming water accounting year
- » Modelled natural and altered flows resulting from extractions analysed against change limits set by the NT Water Allocation Planning Framework for protecting river flows in the Roper River (80/20)
- » If all environmental water requirements met for full extraction of entitlements, announced allocations are 100%.

Recharge Based Assessment

» Relatively simpler modelling, based on rainfall data and estimated aquifer recharge used to determine annual water allocations:

- Jinduckin Formation Aquifer at Katherine
- Jinduckin Formation Aquifer at Tipperary
- Koolpinyah Dolomite Formation Aquifer
- Wildman Siltstone Formation Aquifer
- Coomalie Dolomite Aquifer at Acacia Hills

River Flow Based Assessment

- » Simple predictions of dry season river flow recessions:
 - Edith River
 - Adelaide River

This Year's Allocations

» Tindall Limestone Aquifer, Katherine < 100% allocation in 2016/17

Water Entitlement Security	2016-17 Allocation
Total	100%
High	100%
Medium	100%
Low - Public Water Supply	0%
Low - Other	64%

» Annual Announced Allocations 100% for all other water resources in 2016/17