WATER SECURITY FOR NORTHERN AUSTRALIA

About the program:

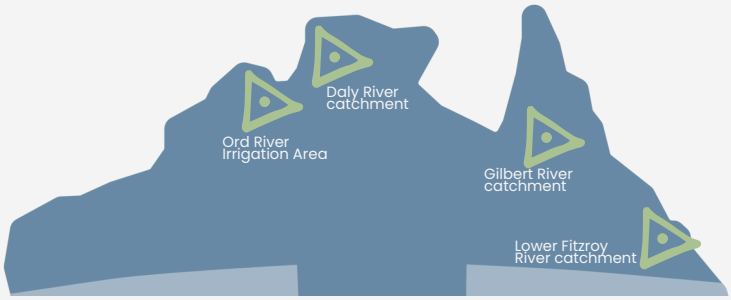
The Water Security for Northern Australia program is being delivered through a partnership between the CRCNA and the Northern Australia Universities Alliance from 2023 to 2026.

The research-focused approach is demonstrating that development and environmentally healthy and sustainable eco-systems can co-exist by better understanding the natural environment.

WSNA has 15 projects co-designed with stakeholders across four major northern water catchments:

- Lower Fitzroy catchment, Central Qld
- Gilbert River catchment, North Qld
- Daly River catchment, Northern Territory
- Ord River Irrigation Area, Western Australia.

Topics examine issues that prevent or restrict development of water resources, effective use, equitable access and environmental outcomes of water use.



Research focus:

- Water quality, availability and the environment
- Environmental impacts and management
- Greater Indigenous benefit from water resources
- Biodiversity supported by aquatic environments
- Climate impacts and management
- Cropping systems and new crops
- Improved economic returns from the use of water resources

Research locations:

Lower Fitzroy catchment (CQ)

Gilbert River catchment (NQ)

Daly River catchment (NT)

Ord River Irrigation Area (WA)

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Lower Fitzroy catchment (Qld)

- Prospects for new agricultural technology across the north.
- Optimising environmental water quality monitoring.
- Prospects for specialty crops.
- Modelling the upstream and downstream supply chain needs for efficiencies.

Gilbert River catchment (Qld)

- Conservation value of aquatic species.
- Contribution of groundwater to waterhole persistence.
- Drought vulnerability
- Ecosystem services (e.g. carbon storage) for proposed development.
- Indigenous values and potential of water enterprise products.


Image credit G. Cranitich Qld Museum

Daly River catchment (NT)

- Investigation of multi-catchment climate change models.
- Improved understanding of the sources of springs that feed into the Daly River to assist water management.
- Wet season floodplains and water requirements of ecosystems.
- Cropping systems in the catchment, present and future.

Ord River Irrigation Area (WA)

- Review of water/catchment management in tropical environments.
- Assessing agricultural runoff and impacts to the Keep River.
- Understanding the values of water in the Ord River Irrigation Area.