

# Northern Australia Water Resource Assessment

The Australian Government and CSIRO are partnering to investigate opportunities for water and agricultural development for three priority regions in northern Australia.

Northern Australia makes a substantial contribution to the Australian economy, particularly through agriculture, mining and tourism.

There are opportunities to unlock significant new investment in the north. This will require confidence about the scale and nature of the opportunities and understanding of the risks involved.

Millions of hectares of soil are potentially suitable for irrigated agriculture across northern Australia but access to water is one of several constraints to development.

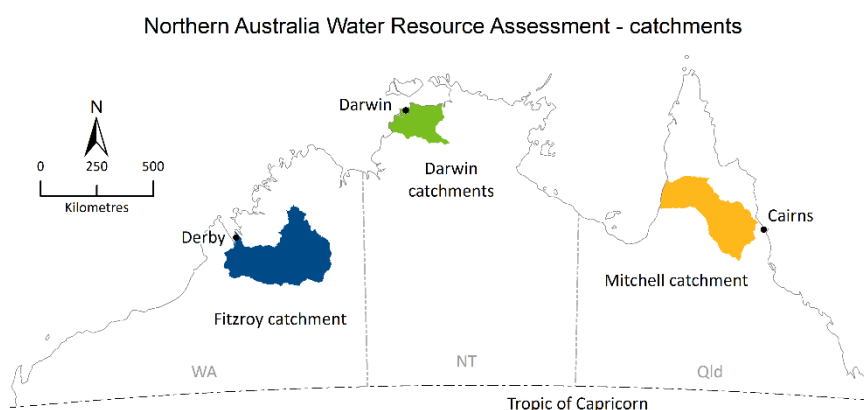
Following the successful Flinders and Gilbert Agricultural Resource Assessment, CSIRO has been engaged by the Australian Government to assess the opportunities for water and agricultural development in other priority regions in northern Australia.

We will work with northern jurisdictions, research partners and communities to complete these assessments by June 2018.

## About the Assessment

The Northern Australia Water Resource Assessment will provide a comprehensive and integrated evaluation of the feasibility, economic viability and sustainability of water and agricultural development in three priority regions.

The Assessment will focus on the Mitchell catchment in Queensland, Darwin catchments (Adelaide, Finniss, Mary and Wildman) in the Northern Territory, and the Fitzroy catchment in Western Australia.



## Assessment goals

For each of the three regions, the Assessment seeks to:

- evaluate the soil and water resources
- identify and evaluate water capture and storage options
- identify and test the commercial viability of irrigated agricultural and aquaculture opportunities
- assess potential environmental, social and economic impacts and risks of water resource and irrigation development.

While agricultural developments may be the most likely to proceed in the foreseeable future, the Assessment will also consider opportunities for and intersections between all types of water-dependent development, where these have potential. For example, the Assessment will explore the nature, scale, location and impacts of developments relating to industrial and urban development and aquaculture in relevant locations.

## Supporting regional decision making and investment

The Assessment aims to support decision making about sustainable regional development by clarifying the scale and nature of the opportunities for agriculture, reducing the uncertainty of investors and regulators, reducing enterprise start-up costs and enhancing the capacity for investors to attract capital.

Where previous assessments have focused on single development activities or assets – without analysing the interactions between them – this Assessment will consider the opportunities presented by the simultaneous pursuit of multiple development activities and assets. By this means, the Assessment will use a whole-of-region (rather than an asset-by-asset) approach to considering development.

Importantly, the Assessment seeks to lower the barriers to investment in regional development by:

- explicitly addressing local needs and aspirations
- meeting the needs of governments as they regulate the sustainable and equitable management of public resources with due consideration of environmental and cultural issues
- meeting the due diligence requirements of private investors by addressing questions of resource reliability and profitability at a broad scale.

The Assessment will not recommend one development over another and won't assume any particular development pathway. It will provide a range of possibilities and the information required to interpret them, consistent with regional values and aspirations. The Assessment does not seek to replace any planning processes, and will not recommend changes to existing plans or planning processes. The results, however, can be used to inform planning decisions by citizens, councils, investors and state and federal governments. Please contact the relevant government department to discuss matters such as water allocation, clearing, change of land use, including diversification permits, and land development approval processes.

## Assessment activities

This is a complex project, drawing on the capabilities of scientists across Australia. Key activities include:

- Surface water modelling to assess the volume and reliability of river flows and the extent, magnitude and duration of floods
- Topographic mapping and automated terrain analysis to identify and evaluate water storage and development options
- Quantifying the scale of available groundwater resources and examining opportunities for managed aquifer recharge
- Mapping land and soil suitability and production risks (e.g. floods and salinity) across agricultural, horticultural and pastoral systems and for aquaculture developments
- Assessing cropping and crop-forage-livestock systems with potential to generate attractive investment returns
- Cost-benefit analysis for multiple uses and users of water
- Identifying logistical and value chain assets, opportunities and bottlenecks
- Understanding the trade-offs between water resource development and freshwater and marine environments
- Identifying Indigenous aspirations and water values
- Information and data distribution through web-based information products, reports and regular community-based information sessions.

*The Northern Australia Water Resource Assessment is part of the Australian Government's Agricultural Competitiveness White Paper, the government's plan for stronger farmers and a stronger economy.*

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### FOR FURTHER INFORMATION

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