



# Victoria River Water Resource Assessment

CSIRO was commissioned by the National Water Grid Authority to investigate the opportunities and risks of water and agricultural development in the Victoria River catchment and its tributaries

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. Following the successful Flinders and Gilbert Agricultural Resource Assessment and the Northern Australia Water Resource Assessment, CSIRO has been engaged by the National Water Grid Authority to assess the opportunities for water and agricultural development and the associated risks in the Victoria River catchment and its tributaries in the Northern Territory. We will work with the Northern Territory government, research partners and communities to complete this assessment by June 2024.

## About the Assessment

The Victoria River Water Resource Assessment will provide a comprehensive and integrated evaluation of the feasibility, economic viability and sustainability of water and agricultural development in the Victoria River catchment and tributaries.

## Assessment goals

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 agriculture and aquaculture opportunities
- assess potential environmental, social and economic impacts and risks of water resource and irrigation development
- understand development interests and aspirations of Indigenous Traditional Owners in the Victoria River catchment.



The Assessment will also consider opportunities for, and intersections between, different types of potential water-dependent development. The information collected is likely to have value for a wide range of applications including country planning, catchment and resource management and help inform economic and development projects that support and facilitate Indigenous owned businesses.

## Supporting regional decision making and investment

The Assessment will support decision making about sustainable regional development by: clarifying the scale and nature of the opportunities for agriculture; reducing the uncertainty for investors and regulators; reducing enterprise start-up costs; and identifying risks of development.

Previous assessments have focused on single development activities, without analysing the interactions between them. Instead, this Assessment will consider the opportunities and risks presented by the simultaneous pursuit of multiple development activities. To do this, the Assessment will use a whole-of-region 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 resources with due consideration of environmental and cultural matters
- 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, nor 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, investors, local government and state and federal governments. Please contact the relevant government department to discuss matters such as water allocation, clearing, change of land use including required permits, and land development approval processes.

## Assessment activities

This is a complex project, drawing on the capabilities of scientists from across Australia. The team's key activities include:

- Surface water modelling to assess the volume and reliability of river flow
- Topographic mapping and automated terrain analysis to identify and evaluate water storage and development options
- Mapping land and soil suitability and production risks for agriculture and aquaculture developments
- Assessing cropping and crop–forage–livestock systems with potential to generate attractive investment returns
- Cost-benefit analyses 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 environment needs
- Identifying Indigenous peoples' aspirations and water values
- Examining the potential for co-benefits to other industries arising from irrigated agriculture
- Information and data distribution through Web-based information products, reports, and community-based information sessions.

