



# Mission Area: Resilient & Valuable Environments

We have been working with collaborators from across industry, research and government to co-design this mission. This summary reflects the mission in development and will continue to evolve.

***Establish an integrated ground-to-space national water quality monitoring system by 2026, to safeguard our freshwater and coastal resources and grow Australia's high-tech space industry.***

## Opportunity

Water is our most important and vital resource. The health of our inland waterways and coastal environments is essential for maintaining safe water for drinking, for use by primary industries and for preserving our natural environments.

The AquaWatch system would deliver real-time data for monitoring and managing our valuable freshwater resources, and our coastal environments. The program will be a step-change in Australia's national water quality information delivery.

As well as monitoring the health of our inland rivers, dams and waterways, AquaWatch will also have potential application to monitor coastal wetlands, aquaculture farms, riparian vegetation and terrestrial biodiversity, mine sites, mangroves and coral reef environments.

## Proposed mission focus

- Infrastructure and data services
- Earth observation satellites
- Network of ground-based sensors
- Predictive data modelling for real-time decisions



Image: Copernicus/Sentinel 2A/ESA.

## Impact

- Improve management of vital safe drinking water and water resources including the health of the Murray Darling and the Great Barrier Reef.
- Drive the development of Australian advanced manufacturing and engineering.
- Early warning to reduce economic impacts to fishing and tourism of harmful algae blooms and contaminants.
- Support the development of data analytics platforms, programs and data value-adding jobs that integrate prediction modelling, data analysis and environmental monitoring.
- Enhance urban and regional water resource management.

## Current mission collaborators

Success depends on strong collaboration across industry, research and governments. Together we can leverage existing knowledge and capabilities and develop new solutions for a more resilient Australia.

We have partnered with the SmartSat CRC to establish AquaWatch Australia. Our other early collaborators include University of Queensland, UNSW Canberra Space, Curtin University, SatDek and Water Research Australia. We are seeking further collaborators to join us.

## For further information

Alex Held  
1300 363 400  
[CSIROEnquiries@csiro.au](mailto:CSIROEnquiries@csiro.au)