



Reef 2050 Water Quality Improvement Plan review

The [Reef 2050 Water Quality Improvement Plan](#) (Reef 2050 WQIP) guides how industry, government and the community work together to improve the quality of water flowing to the Great Barrier Reef.

It delivers water quality improvement actions under the [Reef 2050 Long-Term Sustainability Plan](#) and is underpinned by the latest science and a robust monitoring and evaluation program.

The Reef 2050 WQIP builds on 20 years of partnerships involving government, landholders, natural resource managers, industry, Traditional Owners, researchers, and conservation groups. The Australian and Queensland governments have committed more than \$1.68 billion to improving Reef water quality from 2014 to 2030.

A review of the Reef 2050 WQIP is underway and, once finalised, the [Paddock to Reef Integrated Monitoring, Modelling and Reporting \(Paddock to Reef\) Program](#) will be reviewed. This program provides the framework for reporting progress towards the plan's targets and objectives.

The Reef 2050 WQIP review involves several key components delivered by experts in consultation with stakeholders through a staged process. The first stage has engaged the agricultural industry in reviewing the land management practice adoption targets for agriculture. Broader stakeholder engagement on the other components (outlined below) is planned.

Updating the Scientific Consensus Statement

The [Scientific Consensus Statement](#) (SCS) brings together the latest peer reviewed scientific evidence about how activities on land can impact Reef water quality and ecosystem condition. It provides the foundation for updating the Reef 2050 WQIP.

Experts in Great Barrier Reef water quality science and management are reviewing and synthesising the scientific evidence of water quality issues relating to the Reef. They will form a consensus on understanding of the system to inform Reef policy and management based on the best available scientific evidence.

The Australian and Queensland Chief Scientists are providing oversight of the process and the Reef science advisory bodies are providing independent advice.

The independent review is being led by C2O and you can find out more on the [Scientific Consensus Statement communication and engagement platform](#).

Reviewing the water quality targets

Water quality targets are developed for the five main pollutants that impact the Reef – sediment (especially fine sediment), dissolved inorganic nitrogen (DIN), particulate nitrogen (PN), particulate phosphorus (PP) and pesticides.

The targets are being reviewed based on the best available scientific and technical knowledge. The review will identify the required reductions in pollutant loads to maintain healthy coral and seagrass. The targets will be set at the catchment, regional and whole-of-Reef scales.

The pesticide target is based on the concentrations required to protect 99 percent of aquatic species at the river mouth. This reflects the fact that impacts from pesticides are more related to concentrations than loads.



Developing the spatial management prioritisation

The spatial management prioritisation will help prioritise water quality improvement activities and investment based on risks to the Reef. It will incorporate the latest modelling and monitoring information to assess the water quality risks to key coastal and marine ecosystems at a catchment scale.

This work will be integrated with a social and economic assessment, which allows for priorities to reflect local circumstances. This means that catchments with similar targets may have different priorities for action.

Reviewing the land management practice adoption targets for agriculture

This independent review will propose agricultural industry and regional land management practice adoption targets that more directly align with what is needed to achieve the water quality targets.

It is considering what agricultural practices the targets focus on; achievability, profitability and productivity of land management changes; and other existing practice change instruments.

Targets will be proposed for each industry (e.g. sugarcane, grazing, bananas, horticulture and grains production) and at a finer spatial scale (e.g. regional or catchment).

The targets are being developed in consultation with a Stakeholder Partnership Group involving industry, conservation groups, natural resource management organisations and government representatives.

Reviewing the catchment management (ground cover, riparian and wetland extent) targets

The ground cover and riparian vegetation targets aim to minimise rainfall run-off and streambank erosion and reduce erosion and sediment loss. The wetland extent target aims to protect the values of wetlands and the role they play in ensuring ecosystem health.

These targets will be reviewed based on the latest available science including new, higher resolution satellite data.

Developing a new target for urban land use

Urban and industrial activities contribute only 7% of the dissolved inorganic nitrogen and 1.9% of sediment in run-off flowing to the Reef, but the impact can be locally significant.

An [Urban Water Stewardship Framework](#) has been developed and trialled with local governments. This framework will be considered to develop targets relevant to urban land use.

Reviewing the human dimensions target

Human dimensions are defined as the social, economic, cultural, institutional and environmental factors that play a role in shaping outcomes associated with water quality and the Great Barrier Reef. These range from aspirations and capacities of landholders, industries and communities to their stewardship practices, as well as broader governance.

A review of the human dimensions target will consider the quality and nature of how communities and land managers are actively engaged in programs and activities to improve water quality.

More information

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