BURDEKIN REGION Black catchment water quality targets

Catchment profile

Under the Reef 2050 Water Quality Improvement Plan, water quality targets have been set for most catchments that drain to the Great Barrier Reef. While catchment loads data is available for the Black catchment, targets were not determined due to no marine modelling or existing regional Water Quality Improvement Plan targets.

The Black catchment covers 1057 km² (1% of the Burdekin region). Rainfall averages 1523 mm a year, which results in river discharges to the coast of about 993 GL each year.

The Black catchment sits in the Townsville Coastal Plain and has two major waterways, the Black and Bohle rivers, which capture the southern section of the catchment. Smaller coastal creeks drain the northern section of the catchment, including Crystal Creek, Leichhardt Creek, Sleeper Log Creek and Bluewater Creek. The northern section of the catchment is principally for conservation and minimal use, with some grazing and sugarcane agriculture closer to the coast. The southern section is principally used for grazing and has some urban localities, including the north region of the greater Townsville area.



Land uses in the Black catchment

The main land uses are grazing (47%), nature conservation (39%), and forestry (5%).





2025 water quality targets and priorities

Modelled water quality pollutant loads



The 2025 targets aim to reduce the amounts of fine sediments, nutrients (nitrogen and phosphorus) and pesticides flowing to the reef. Each target for sediment and nutrients is expressed as: (a) the percentage load reduction required compared with the 2013 estimated load of each pollutant from the catchment; and (b) the load reductions required in tonnes. Progress made since 2013 will count towards these targets. Previously reported progress between 2009 and 2013 has already been accounted for when setting the targets. The pesticide target aims to ensure that concentrations of pesticides at the end of each catchment are low enough that 99% of aquatic species are protected. The targets are ecologically relevant for the Great Barrier Reef, and are necessary to ensure that broadscale land uses have no detrimental effect on the reef's health and resilience.

A high percentage reduction target may not necessarily mean it is the highest priority. The priorities (ranked by colour) reflect the relative risk assessment priorities for water quality improvement, based on an independent report, the 2017 Scientific Consensus Statement. The priorities reflect scientific assessment of the likely risks of pollutants damaging coastal and marine ecosystems.





erosion, forestry and sugarcane areas.

Types of sediment erosion



Most sediment erosion comes from hillslopes and gullies in the Black catchment.



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