

WET TROPICS REGION

Mossman catchment water quality targets

Catchment profile

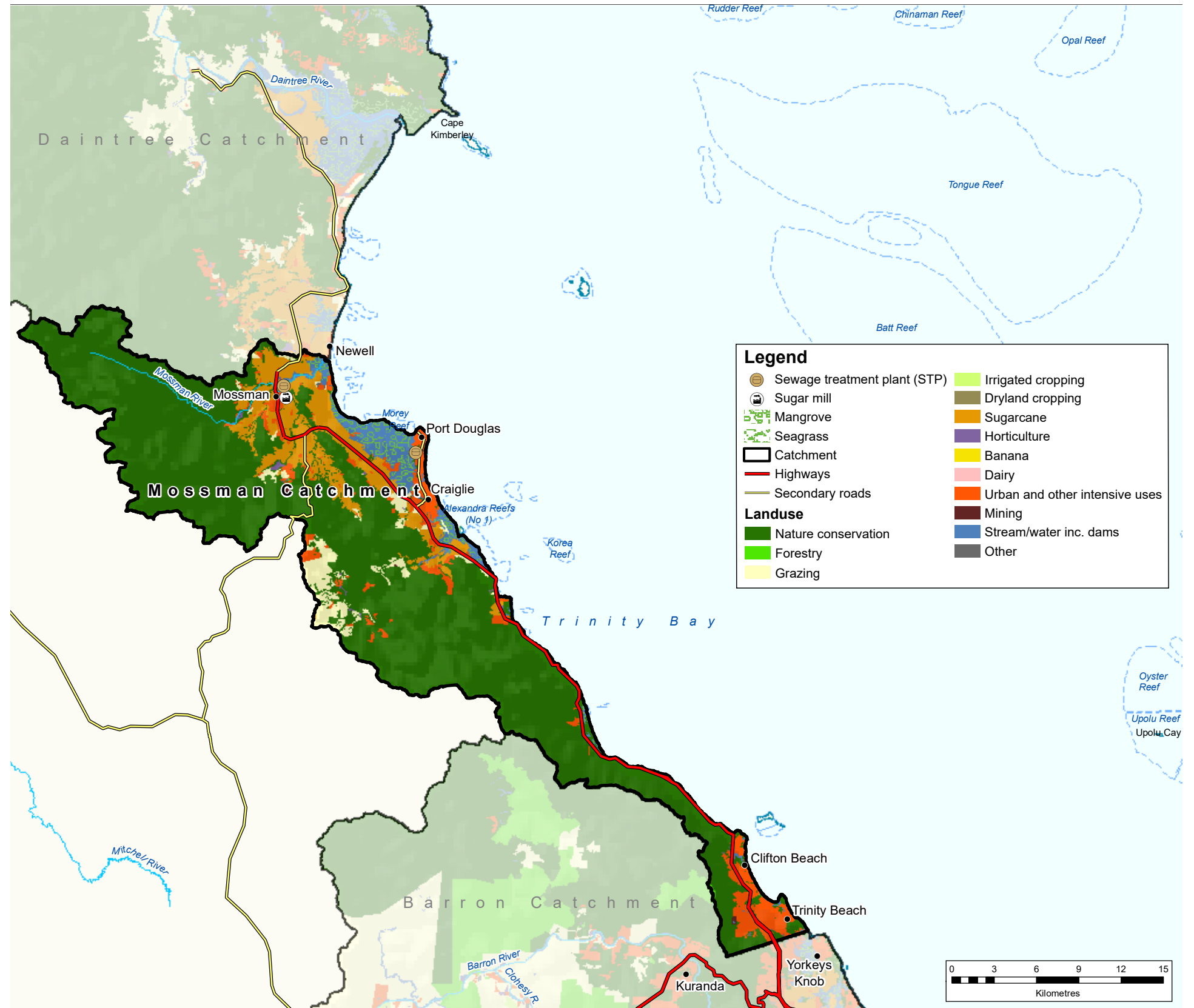
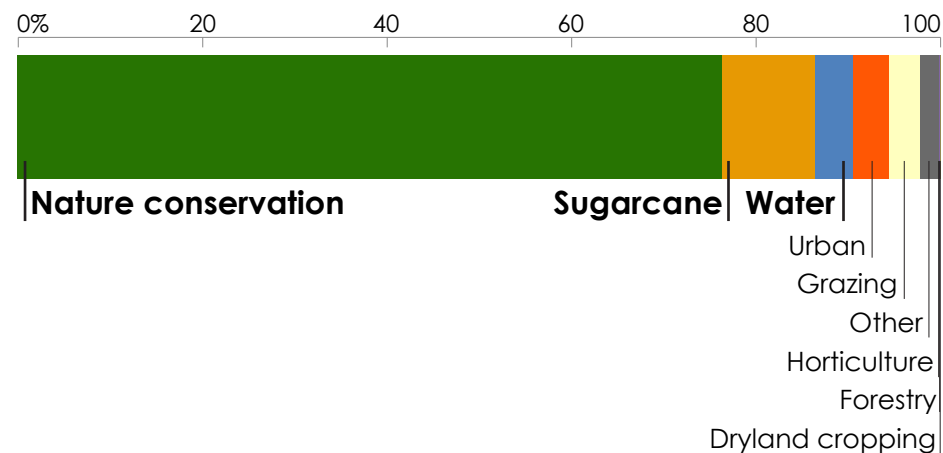
Under the Reef 2050 Water Quality Improvement Plan, water quality targets have been set for each catchment that drains to the Great Barrier Reef. These targets (given over the page) consider land use and pollutant loads from each catchment.

The Mossman catchment covers 473 km² (2% of the Wet Tropics region). Rainfall averages 2109 mm a year, which results in river discharges to the coast of about 505 GL each year.

The Mossman catchment sits in the north of the Wet Tropics region, occupying a narrow stretch along the coast. The catchment comprises two major rivers, the Mossman and Mowbray rivers, and a number of smaller creeks that drain from the mountain ranges to the coast. The majority of the catchment area is reserved for natural/minimal land use and sits within the mountain ranges. The narrow coastal plain, at the foot of the mountain range, has largely been developed for agriculture (mostly sugarcane) and urban land uses, with the townships of Mossman and Port Douglas as the major population centres.

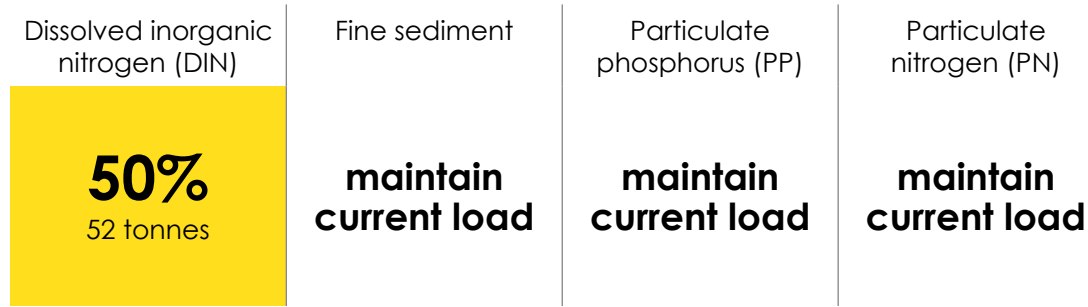
Land uses in the Mossman catchment

The main land uses are nature conservation (76%), sugarcane (10%), and water (4%).



2025 water quality targets and priorities

End-of-catchment anthropogenic load reductions required from 2013 baseline



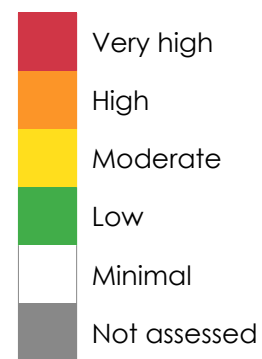
The 2025 targets aim to reduce the amounts of fine sediments, nutrients (nitrogen and phosphorus) and pesticides flowing to the reef. Where there are minimal anthropogenic pollutant loads, the aim is to maintain current water quality so there are no increases in loads. Each target for sediment and nutrients 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.

Pesticides

To protect at least **99%** of aquatic species at the end of catchment

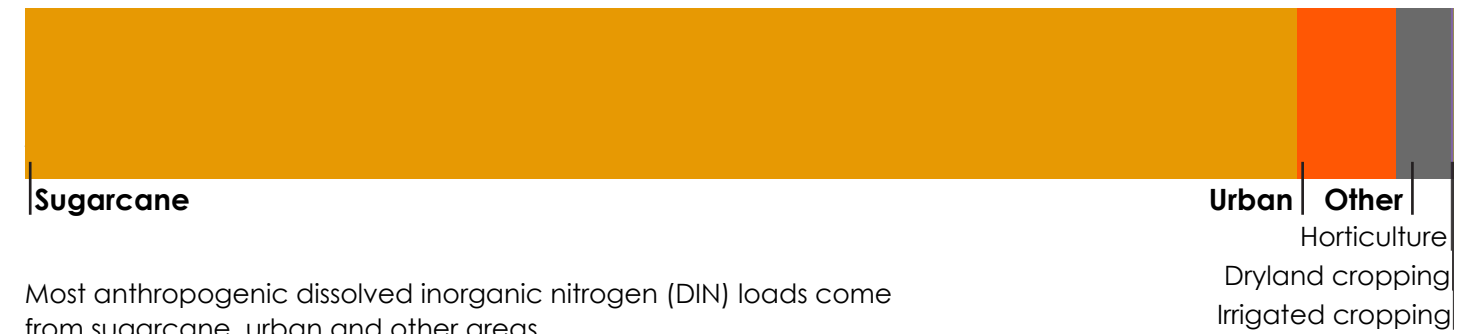
Water quality relative priority



Modelled water quality pollutant loads

The Mossman catchment has minimal anthropogenic fine sediment loads. The aim is to reduce dissolved inorganic nitrogen loads, most of which come from sugarcane.

Dissolved inorganic nitrogen



Most anthropogenic dissolved inorganic nitrogen (DIN) loads come from sugarcane, urban and other areas.



Australian Government



Queensland Government