

# MACKAY WHITSUNDAY REGION

## Proserpine catchment water quality targets

### Catchment profile

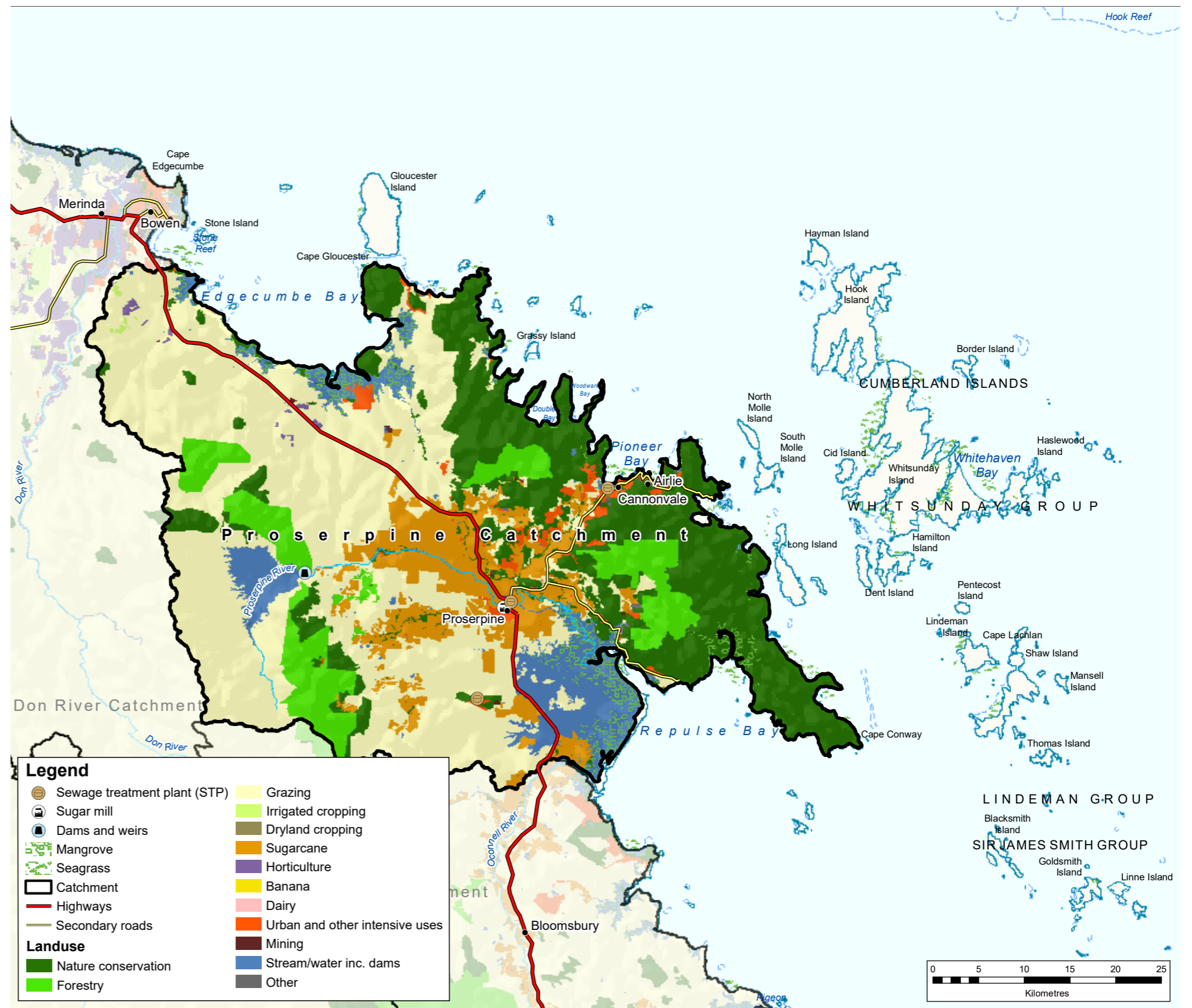
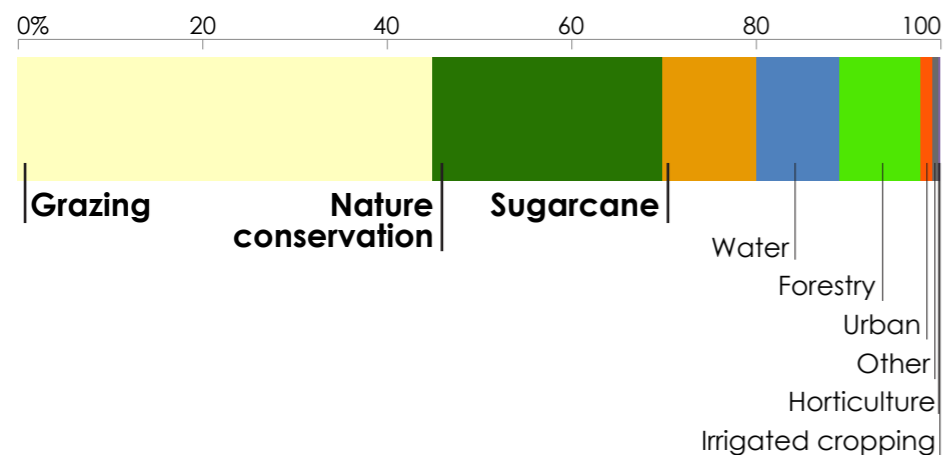
Under the Reef 2050 Water Quality Improvement Plan, water quality targets have been set for each catchment that drains to the Great Barrier Reef. These targets (given over the page) consider land use and pollutant loads from each catchment.

The Proserpine catchment covers 2494 km<sup>2</sup> (28% of the Mackay Whitsunday region). Rainfall averages 1474 mm a year, which results in river discharges to the coast of about 2150 GL each year.

The Proserpine catchment is the northernmost catchment in the Mackay Whitsunday region and comprises nine sub-catchments. The main waterway is the Proserpine River located in the centre of the catchment area. The upper tributaries of the Proserpine River are dominated by grazing and come together at Lake Proserpine (Peter Faust Dam). The lower reaches flow through the township of Proserpine and through sugarcane and conservation areas before reaching the coast at Repulse Bay. The northern sub-catchments discharge to Edgumbe Bay and include Eden Lassie Creek and Gregory River. The Whitsunday Coast and Repulse Creek sub-catchments lie on the coastal fringe, and Myrtle, Lethebrook and Thompson creeks capture the southernmost section of the catchment area. Grazing, conservation and sugarcane are the main land uses, with some horticultural and urban areas.

### Land uses in the Proserpine catchment

The main land uses are grazing (45%), nature conservation (25%), and sugarcane (10%).



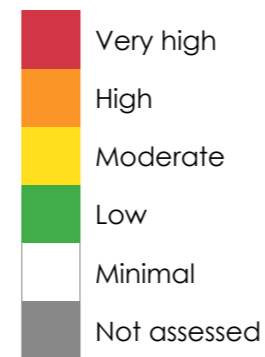
## 2025 water quality targets and priorities

End-of-catchment anthropogenic load reductions required from 2013 baseline				Pesticides
Dissolved inorganic nitrogen (DIN)	Fine sediment	Particulate phosphorus (PP)	Particulate nitrogen (PN)	
<b>70%</b> 110 tonnes	<b>maintain current load</b>	<b>maintain current load</b>	<b>maintain current load</b>	To protect at least <b>99%</b> of aquatic species at the end of catchment

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.

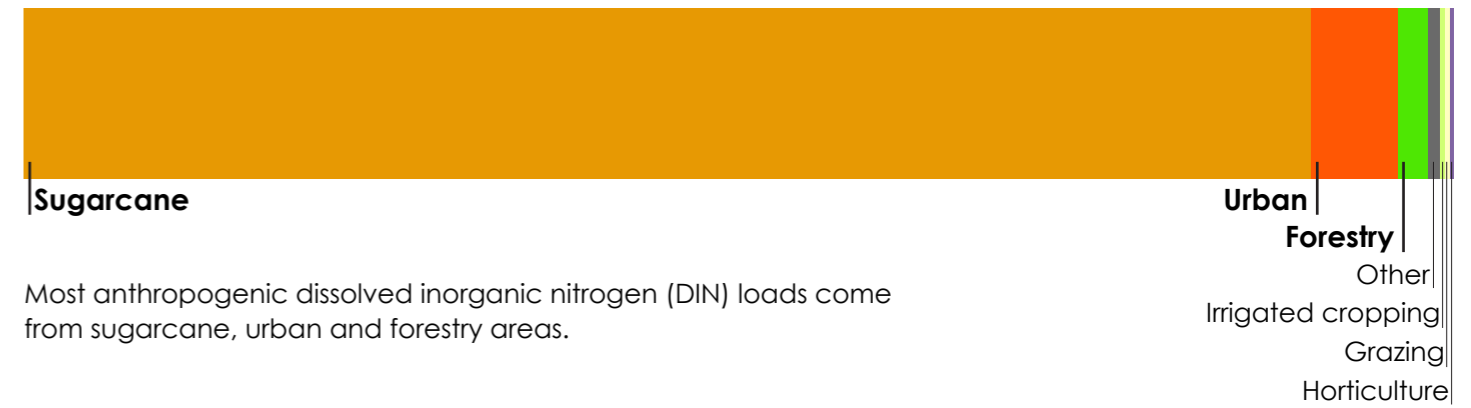
### Water quality relative priority



## Modelled water quality pollutant loads

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

### Dissolved inorganic nitrogen



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

