BURDEKIN REGION

Don catchment water quality targets

Catchment profile

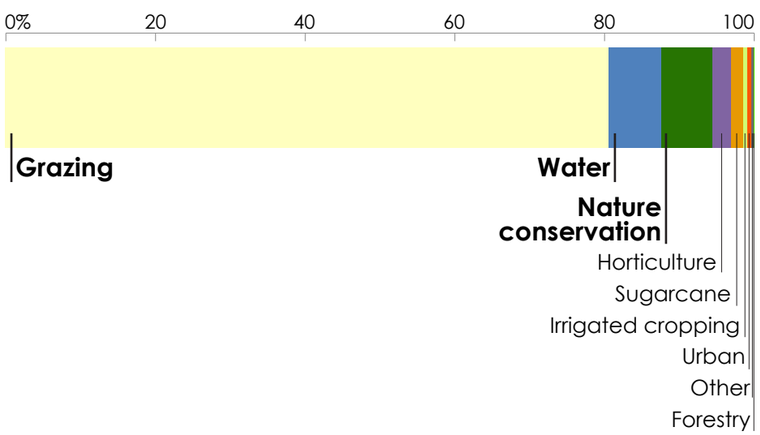
Under the Reef 2050 Water Quality Improvement Plan, water quality targets have been set for each catchment that drains to the Great Barrier Reef. These targets (given over the page) consider land use and pollutant loads from each catchment.

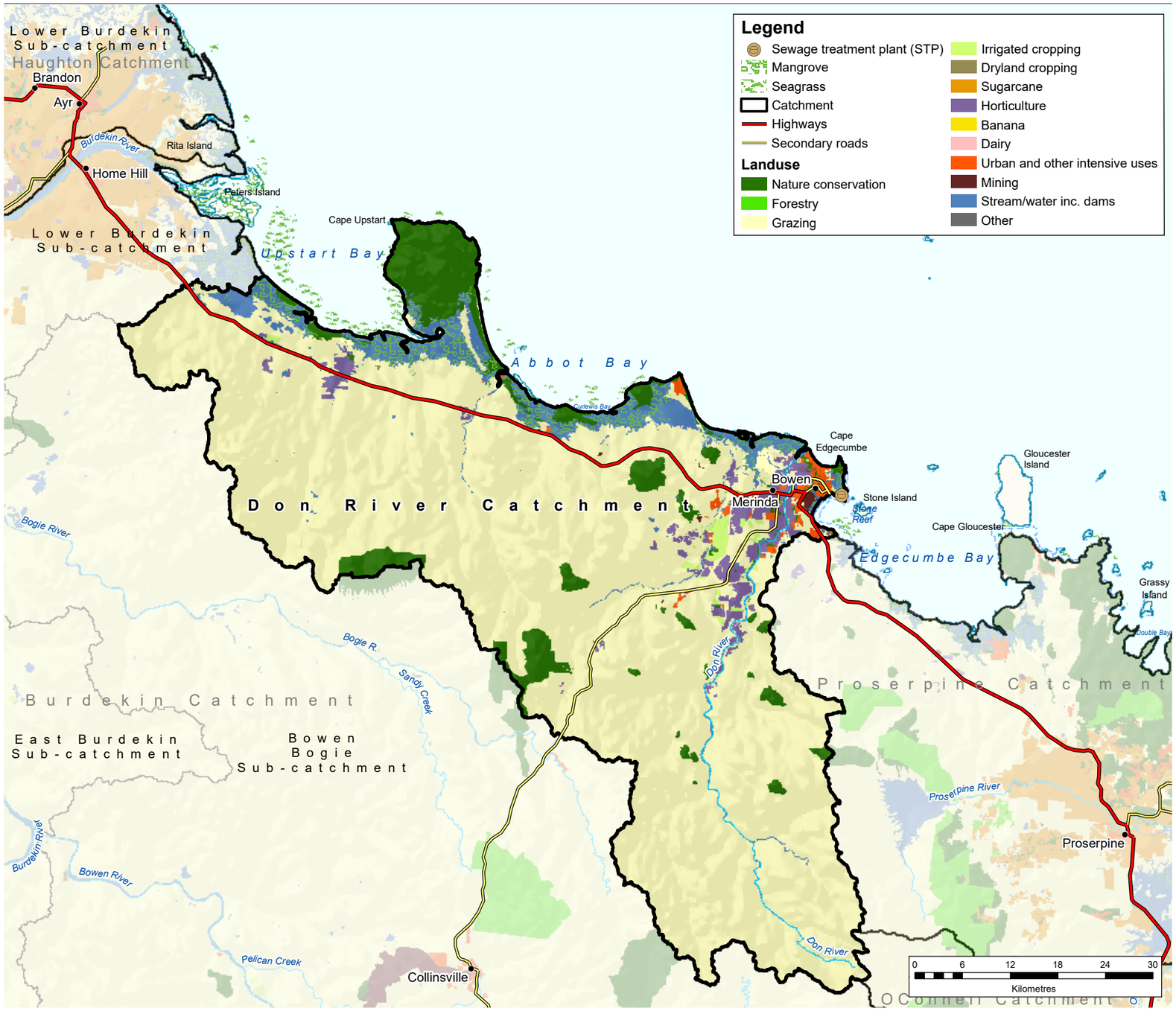
The Don catchment covers 3736 km^2 (3% of the Burdekin region). Rainfall averages 871 mm a year, which results in river discharges to the coast of about 735 GL each year.

The Don catchment is the southernmost catchment along the coastal edge of the Burdekin region. The Don is divided into three sub-catchments, Upstart Bay in the north, Abbot Bay in the middle and the Don River in the south. A number of small creeks drain the grazing lands in the north of the catchment directly to the coastal shores of Upstart Bay. Elliot River and Euri Creek flow to Abbot Bay in the central region, which is largely a grazing area with some horticulture and cropping. The Don River is the main waterway and captures the majority of the southern part of the catchment, including vast areas of grazing in the west. The township of Bowen is located just to the south of the mouth of the Don River, where horticulture and cropping are also prevalent.

Land uses in the Don catchment

The main land uses are grazing (81%), water (7%), and nature conservation (7%).





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)	
maintain current load	**30%** 55 kilotonnes	**30%** 43 tonnes	**30%** 75 tonnes	To protect at least **99%** 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.

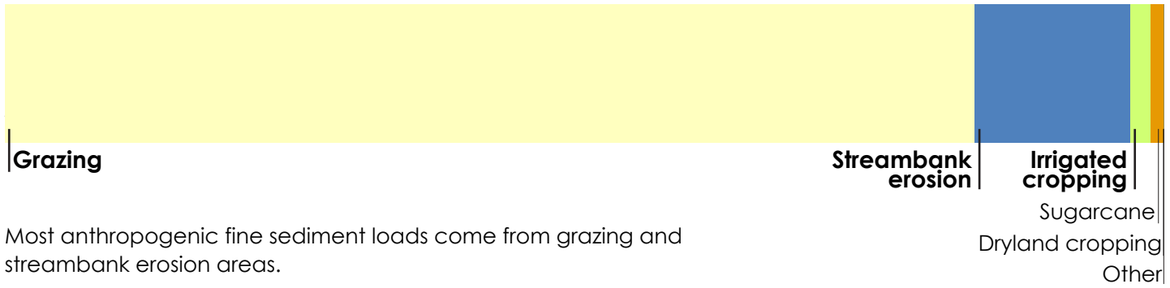
Water quality relative priority

- Very high
- High
- Moderate
- Low
- Minimal
- Not assessed

Modelled water quality pollutant loads

The Don catchment has minimal anthropogenic dissolved inorganic nitrogen loads. The aim is to reduce loads of fine sediment, most of which come from gully erosion in grazing areas.

Fine sediment



Most anthropogenic fine sediment loads come from grazing and streambank erosion areas.

Types of sediment erosion

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