WET TROPICS REGION

Johnstone 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 Johnstone catchment covers 2325 km² (11% of the Wet Tropics region). Rainfall averages 3152 mm a year, which results in river discharges to the coast of about 4821 GL each year.

The two biggest sub-catchments are the North Johnstone and South Johnstone rivers. The North Johnstone can be divided into three sections. The upper is used for dairying, beef grazing, sugarcane and potatoes and supports the towns of Millaa Millaa and Malanda. Most of the middle section, which is steep forest, is in the Wet Tropics World Heritage Area. The lower reaches are mostly low sloping hills and coastal floodplains supporting most of the agriculture in the catchment, and the larger towns of Innisfail and South Johnstone.

Land uses in the Johnstone catchment

The main land uses are nature conservation (55%), grazing (16%), and sugarcane (12%).
**Modelled water quality pollutant loads**

Of the Wet Tropics catchments, the Johnstone contributes the second largest loads of dissolved inorganic nitrogen and fine sediment, mostly from sugarcane. The Johnstone is also one of the top five highest contributors of dissolved inorganic nitrogen of all catchments draining to the Great Barrier Reef.

Sugarcane in the Johnstone generates 2.5 times the average annual loss of fine sediment per hectare of all the Wet Tropics catchments.

**Dissolved inorganic nitrogen**

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

**Fine sediment**

Most anthropogenic fine sediment loads come from sugarcane, streambank erosion, grazing, dairy, bananas and urban areas.

**Types of sediment erosion**

Most sediment erosion comes from hillslopes and streambanks in the Johnstone catchment.