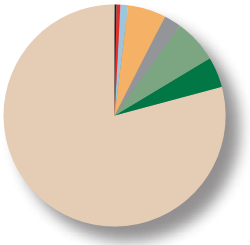
Fitzroy region

First Report Card 2009 Baseline
Reef Water Quality Protection Plan

Regional profile

At 156,000 square kilometres, Fitzroy is the largest region draining into the Great Barrier Reef. The region experiences highly variable rainfall, high evaporation rates and prolonged dry periods that are often followed by floods. The region includes important areas of remnant and threatened vegetation communities (e.g., Brigalow and native grasslands). Grazing is the predominant land use, but there are also large areas of irrigated and dryland cropping. **This report card presents results up to 2009 and therefore does not include the more recent flood events which will be presented in subsequent reports.**



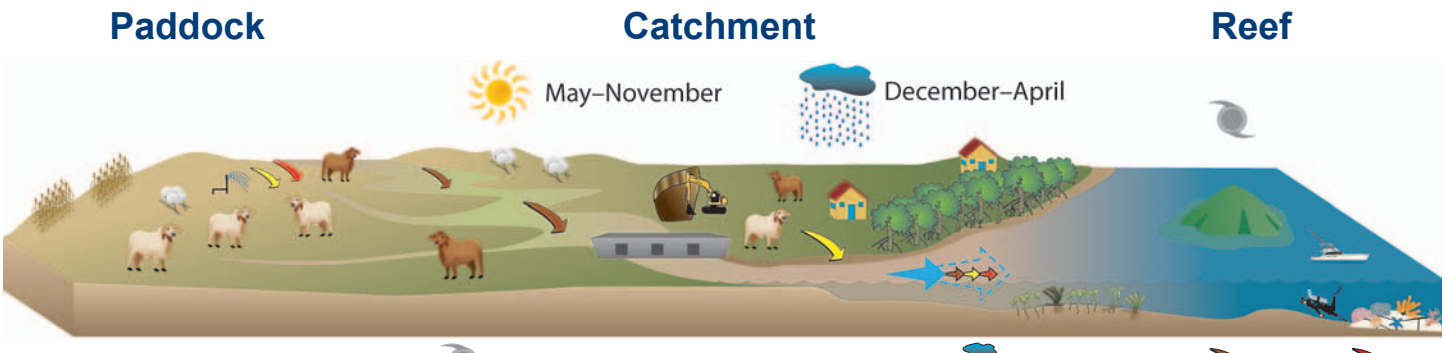
Fitzroy region land use

- Horticulture
- Mining
- Intensive animal production
- Urban and other intensive uses
- Sugarcane
- Water and wetlands
- Other cropping (predominantly grains)
- Other uses
- Forestry
- Conservation and protected areas
- Grazing

Map of the Fitzroy region and Great Barrier Reef Marine Park showing the paddock, catchment and marine monitoring sites.

Key findings

- Fifty-three percent of graziers are using practices that are likely to maintain land in good to very good condition, or improve land in lesser condition.
- The Fitzroy region contributes the second-largest total suspended solid loads entering the Great Barrier Reef.
- The least impacted coastal seagrass meadows are located in the Fitzroy region. Inshore coral reefs have largely recovered from disturbances prior to 2009.



The Fitzroy region has occasional cyclones and variable rainfall predominantly in summer delivering sediments, nutrients and pesticides to the inshore and sometimes offshore portions of the reef in pulsed flows, which can be affected by reservoirs and dams. The catchment is large and has high river flow variability. Grazing is the dominant land use, with dryland cropping and upland cotton. Mangroves are extensive and there is some mining. Urban centres such as Rockhampton and Gladstone are located on the coastal strip. Habitats include offshore reefs, seagrass and mangroves. Continental islands (such as the Keppels) are important for tourism and the region also supports important commercial and recreational fisheries.

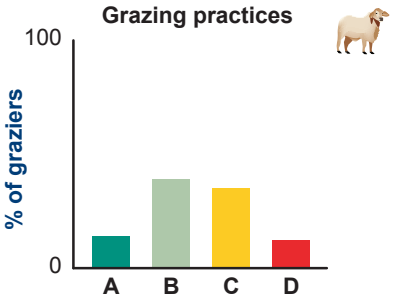
Australian Government

FITZROY BASIN ASSOCIATION

Queensland Government

Land practice results

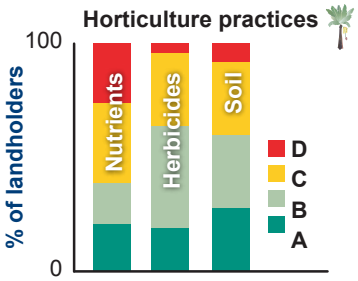
Adoption of improved management practices varies by industry and practice.



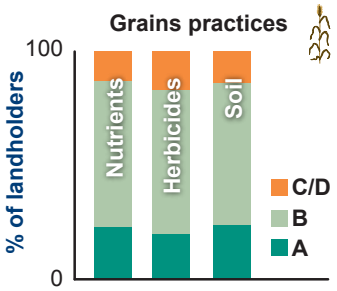
Fifty-three percent of graziers are using (A or B) practices that are likely to maintain land in good to very good condition, or improve land in lesser condition.

The adoption of improved management practices for horticulture and grains is presented below using the following framework:

A – Cutting-edge practices
B – Best practices
C – Common practices
D – Unacceptable practices



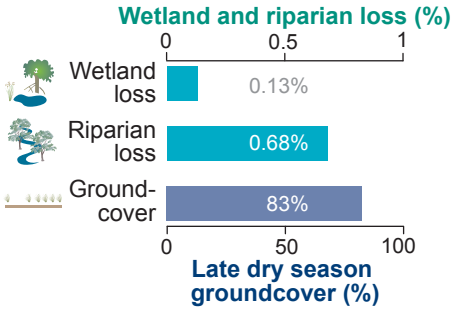
Cutting-edge (A) or best management (B) practices are used by 39 per cent of horticulture producers for nutrients, 64 per cent for herbicides and 60 per cent for soil.



Cutting-edge (A) or best management, (B) practices are used by 85 per cent of grain growers in the Fitzroy region. Code of practice (C) or unacceptable (D) practices are used by 15 per cent of grain growers.

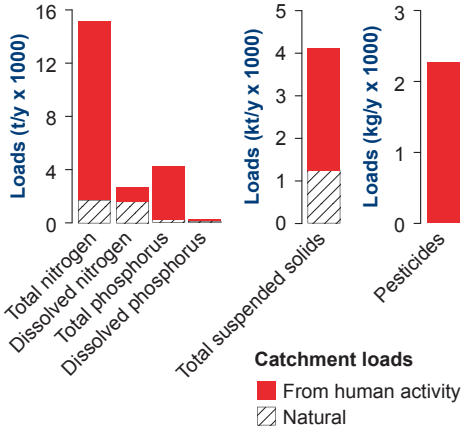
Catchment results

Catchment indicators include wetland and riparian loss, groundcover and catchment loads.



Wetland loss between 2001 and 2005 was 278 hectares (0.13 per cent). The Fitzroy region has the lowest proportion of forested riparian areas compared to other regions, with 1.3 million hectares (71 per cent). The loss of riparian vegetation between 2004 and 2008 was 12,702 hectares (0.68 per cent). Late dry season groundcover is relatively high (83 per cent).

Catchment loads

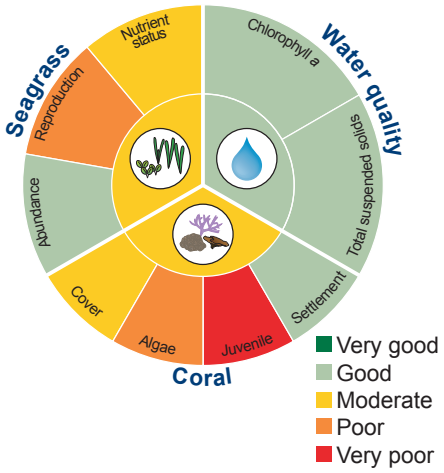


Total suspended solids loads leaving the Fitzroy region are 4.1 million tonnes per year, of which 2.9 million tonnes are from human activity. This is the second highest of the Great Barrier Reef regions and is mainly derived from extensive areas under grazing.

The estimated total phosphorus loads leaving the catchments of the Fitzroy region are 4100 tonnes per year, of which 3900 tonnes are from human activity, largely in the form of particulate phosphorus.

Marine results

Marine results are moderate for corals and seagrass and good for water quality.



Water quality: Water quality is in good condition overall. The pesticides diuron and tebuthiuron are detectable in inshore waters of the region.

Seagrass: Seagrass abundance in the region, although good overall, has generally increased at coastal and estuarine locations but has declined in reef locations. There are low numbers of reproductive structures, indicating reduced resilience to disturbance. Shoalwater Bay contains the least impacted coastal seagrass meadows along the urban coast of the Great Barrier Reef.

Coral: Reefs are in overall moderate condition, with moderate coral cover and good settlement of juvenile corals but very poor juvenile density and high cover of macroalgae. The reefs have recovered from significant disturbances over the past 10 years, but resilience to future disturbance is uncertain.

What is being done?

The Fitzroy Basin Association and industry partners are working with landholders to reduce sediments, nutrients and pesticides to the Great Barrier Reef through the promotion of best management practice systems and implementing on-ground works to restore degraded areas and increase groundcover in grazing lands.

This First Report Card presents results up to 2009 and will be used as the point of comparison to measure progress towards Reef Plan goals and targets.

DPC2066_WEB