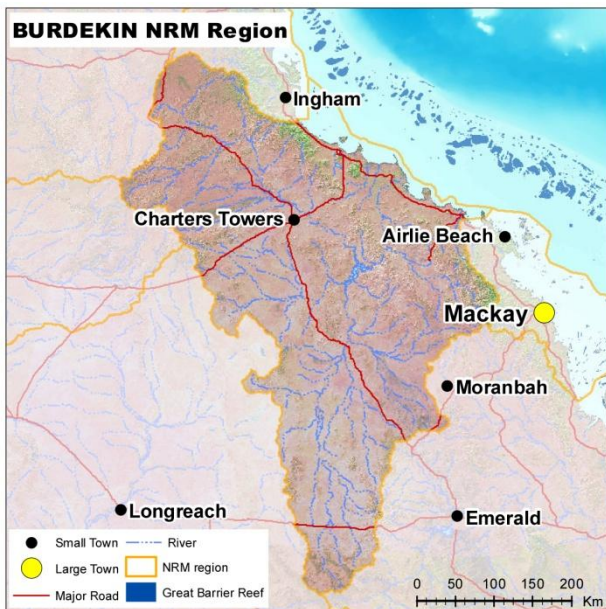




# Burdekin region



## Regional Priorities

The Burdekin Water Quality Improvement Plan 2009 (BWQIP) was developed by NQ Dry Tropics and a range of partner organisations and individuals to help guide investment aimed at managing the threat of catchment runoff to the Great Barrier Reef (GBR).

The land use of grazing represents 87 percent of the BWQIP area and is a significant contributor to the total sediment load to the GBR. The land use of irrigated sugar and horticulture, while only covering a small area relative to grazing, is a contributor of nutrients and pesticides (see further details below on 'key pollutants').

To help improve the long term ecological health of the GBR, the BWQIP identified priority actions and areas to manage the loss of sediment, nutrients and pesticides from these agricultural lands.

## Progress against Water Quality Targets

Early results from the Paddock to Reef programme clearly show that the practices funded through Reef Rescue in the Burdekin have contributed to water quality improvements in the Great Barrier Reef lagoon.

## Proportion and area of industry engaged

- The proportion of Burdekin graziers who have adopted improved management practices is 23 per cent; this equated to 156 graziers implementing 204 water quality improvement projects (cumulative project area = 1,037,303 ha).
- The proportion of Burdekin sugarcane growers who have adopted improved management practices is 42 per cent; this equated to 276 growers implementing 620 water quality improvement projects (cumulative project area = 275,415 ha).
- The proportion of Burdekin horticulture growers who have adopted improved management practices is 42 per cent; this equated to 84 growers implementing 198 water quality improvement projects (cumulative project area = 53,075 ha).
- The proportion of Burdekin grain growers who have adopted improved management practices is 69 per cent; this equated to 24 growers implementing 32 water quality improvement projects (cumulative project area = 103,118 ha).

## Key pollutants

The Burdekin makes the largest contribution to the annual anthropogenic load of sediment (with associated particulate nitrogen and phosphorus loads) delivered to the reef, as well as 31 per cent of the total anthropogenic dissolved inorganic nitrogen (DIN) load.

The majority of sediment is delivered from grazed areas; the areas cultivated for sugarcane in the lower Burdekin make the highest contribution to DIN and PSII herbicide loads.

The Risk assessment conducted as part of the Scientific Consensus Statement on Reef Water Quality shows that the Burdekin ranks highest of the six reef NRM regions for overall risk to seagrass and fourth for overall risk to coral reefs, and notes that freshwater wetlands in the lower Burdekin are at risk from PSII herbicides.



## Regional Funding

From 2008 to 2013, a total of \$32,431,697 was provided to NQ Dry Tropics.

## Load reductions

Paddock to Reef modelling estimates moderate to very good progress toward load reduction.

Modelled load reduction estimates from the Paddock to Reef programme indicate the following load reductions for the Wet Tropics between 2009 and 2013:

- 14% reduction in annual average dissolved inorganic nutrient (DIN) load.
- 12% reduction in annual average sediment load.
- 9% reduction in annual average particulate nitrogen load.
- 10% reduction in annual average particulate phosphorus load.
- 13% reduction in annual average PSII pesticide load.

## Key Achievements

From 2009 to 2013, NQ Dry Tropics engaged 540 farmers and graziers to undertake practice changes to reduce sediment, nutrient and pesticide losses. This resulted in over 1.8 million ha under improved practices with over 1,000 water quality grants totalling \$22 million in Reef Rescue funding (this figure does not include funding for training and extension activities). Land managers invested over \$28 million of their time and money, with average overall investment by landholders receiving grants being \$1.30 for every programme \$1 received.

During the first year of activities, of all Great Barrier Reef catchments, the Burdekin catchment achieved the highest reduction in loads of total nitrogen and total phosphorus at 6.2% and 2.6% respectively.

The catchment also achieved 10.1% reduction in loads of PSII herbicide and 2.2% reduction in sediment loads

## Case study: Grazing – Burdekin (North Queensland Dry Tropics)

*Winners of the Grazing Reef Rescue award, Barry and Leanne O'Sullivan moved to Glenalpine Station, a 57,000 acre property near Bowen in 2003. The property is in a valley surrounded by ranges and when the O'Sullivan's first arrived the land condition was poor due to cattle grazing on lower creek flats, resulting in low ground cover and a subsequent loss of soil through the wet season.*

*With the support of Reef Rescue funding, the O'Sullivans have made comprehensive management changes including fencing to land type and introducing rotational grazing. This has led to successfully improving land condition across the property and ultimately enabled them to reduce the number of cattle grazing whilst maintaining the required turn-off number for their business operations.*

*The O'Sullivan's share their learnings and experiences through involvement in the Grazing Business Management Plan (BMP) Advisory Board & NQBRC Board. They have also hosted a field day at Glenalpine in conjunction with NQ Dry Tropics, hosted a visit from The Hon. Tony Burke whilst he was Minister for Agriculture, been involved with ABC radio interviews discussing soil rotations and fencing to land types and are always open to discussions with fellow landholders.*

*There is one key fundamental concept that the O'Sullivan's have learnt through their involvement with Reef Rescue. They believe they went from being cattlemen, to grass farmers and then realising that they are actually soil farmers; their future is the direct result of how they look after the soil.*



The Changes seen on Barry & Leanne O'Sullivan's property following implementing management changes including fencing to land type and introducing rotational grazing.  
Photos: Queensland Farmers Federation

