

Great Barrier Reef

Report Card **2011**

Reef Water Quality Protection Plan

Catchment pollutant loads results



Australian Government



Queensland Government

Great Barrier Reef

The catchment loads targets are ambitious measures designed to be met in 2013 for nutrients and pesticides and 2020 for sediment. This report card presents information as at June 2011, covering the first two years of Reef Plan 2009 implementation. Catchment modelling has been used to estimate the long term annual load reductions due to the adoption of improved management practices. The model is run over a fixed climate period to account for climate variability.

Nitrogen

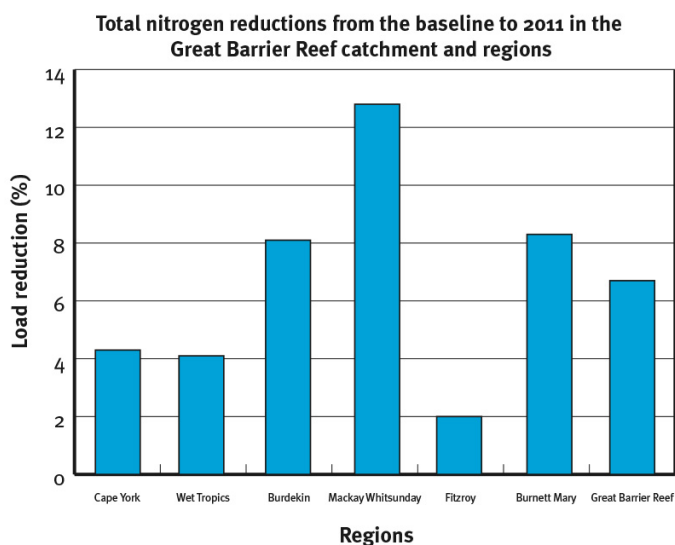


7%

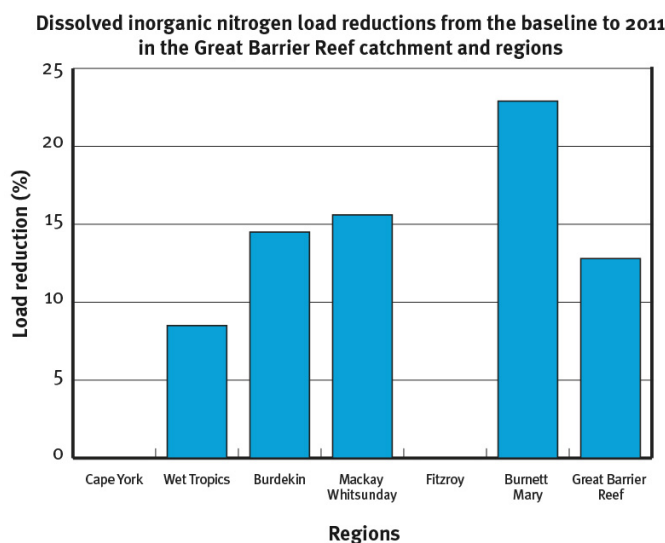
Moderate

Target: 50 per cent by 2013.

The estimated annual average total nitrogen load leaving catchments reduced by seven per cent (1133 tonnes). The greatest per cent total nitrogen load reduction (13 per cent) was in the Mackay Whitsunday region with 228 tonnes.



- Agricultural fertiliser use is a key source of dissolved inorganic nitrogen and phosphorus. The estimated annual average dissolved inorganic nitrogen load leaving catchments reduced by 13 per cent (644 tonnes).
- The greatest per cent dissolved inorganic nitrogen load reduction (23 per cent) was in the Burnett Mary region with 100 tonnes.



Phosphorus



7%

Moderate

Target: 50 per cent by 2013.

The estimated annual average total phosphorus load leaving catchments reduced by seven percent (237 tonnes). The greatest per cent load reduction was from the Mackay Whitsunday region with 12 per cent (37 tonnes).

Sediment



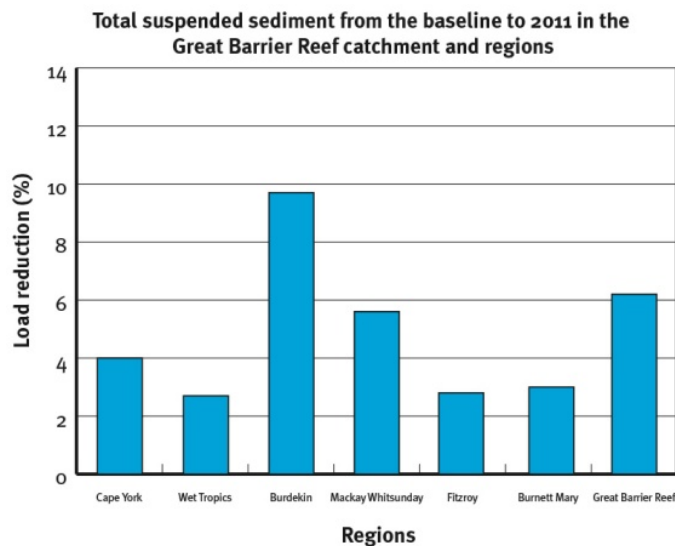
6%

Very good

Target: 20 per cent by 2020.

The estimated annual average suspended sediment load leaving catchments reduced by six per cent (354,000 tonnes). The greatest per cent load reduction was from the Burdekin region with 10 per cent (257,000 tonnes).

The regions contributing the highest total suspended sediment loads were the two largest catchments which are dominated by grazing - the Burdekin (3,705,000 tonnes per year) and the Fitzroy (1,881,000 tonnes per year).



Pesticides

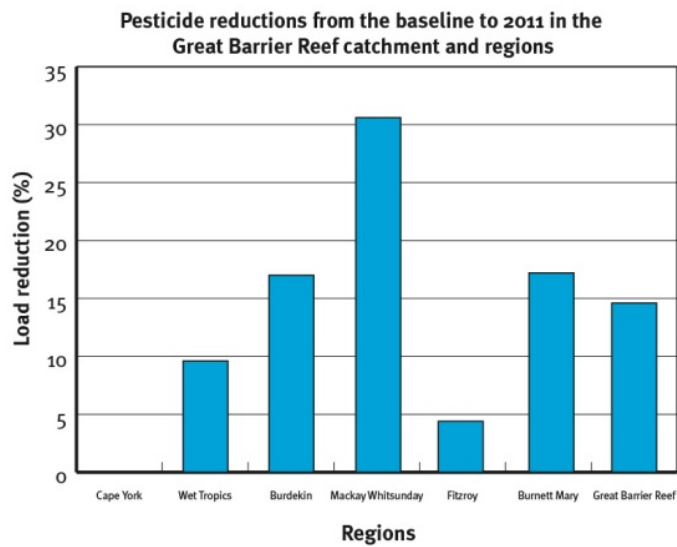


15%
Good

Target: 50 per cent by 2013.

The estimated annual average pesticide load leaving catchments reduced by 15 per cent (2237 kilograms). The greatest per cent load reductions were from the Mackay Whitsunday and Burnett Mary regions with 31 per cent (763 kilograms) and 17 per cent (267 kilograms), respectively.

Agricultural lands are a key source of pesticide runoff, particularly cane lands.



Cape York

Nitrogen



4%

Poor

Target: 50 per cent by 2013.

The estimated annual average total nitrogen load leaving catchments reduced by four per cent (15 tonnes).

Phosphorus



4%

Poor

Target: 50 per cent by 2013.

The estimated annual average total phosphorus load leaving catchments reduced by four per cent (six tonnes).

Sediment

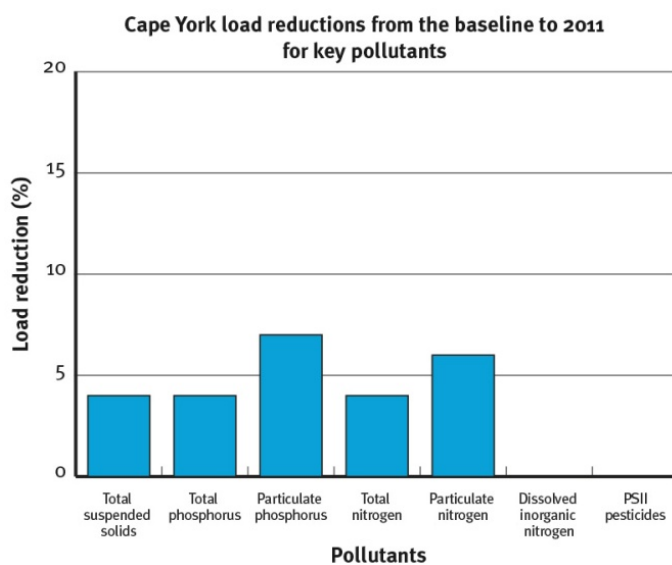


4%

Good

Target: 20 per cent by 2020.

The estimated annual average suspended sediment load leaving catchments reduced by four per cent (7000 tonnes).



Land management changes in the horticulture industry have not been modelled.

Wet Tropics

Nitrogen



4%

Poor

Target: 50 per cent by 2013.

The estimated annual average total nitrogen load leaving catchments reduced by four per cent (263 tonnes). Agricultural fertiliser use is a key source of dissolved inorganic nitrogen and phosphorus. The estimated annual average dissolved inorganic nitrogen load leaving catchments reduced by 9 per cent (172 tonnes).

Phosphorus



6%

Moderate

Target: 50 per cent by 2013.

The estimated annual average total phosphorus load leaving catchments reduced by six per cent (59 tonnes).

Pesticides



10%

Moderate

Target: 50 per cent by 2013.

The estimated annual average pesticide load leaving catchments reduced by 10 per cent (822 kilograms).

Sediment

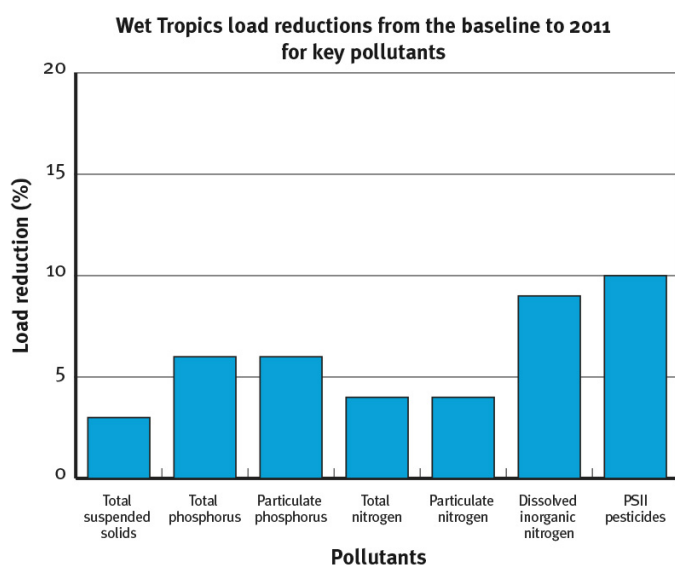


3%

Good

Target: 20 per cent by 2020.

The estimated annual average suspended sediment load leaving catchments reduced by three per cent (21,000 tonnes).



Land management changes in the horticulture and dairy industries have not been modelled.

Burdekin

Nitrogen



8%
Poor

Target: 50 per cent by 2013.

The estimated annual average total nitrogen load leaving catchments reduced by eight per cent (480 tonnes). Agricultural fertiliser use is a key source of dissolved inorganic nitrogen and phosphorus. The estimated annual average dissolved inorganic nitrogen load leaving catchments reduced by 15 per cent (271 tonnes).

Phosphorus



7%
Moderate

Target: 50 per cent by 2013.

The estimated annual average total phosphorus load leaving catchments reduced by seven per cent (91 tonnes).

Pesticides



17%
Good

Target: 50 per cent by 2013.

The estimated annual average pesticide load leaving catchments reduced by 17 per cent (359 kilograms).

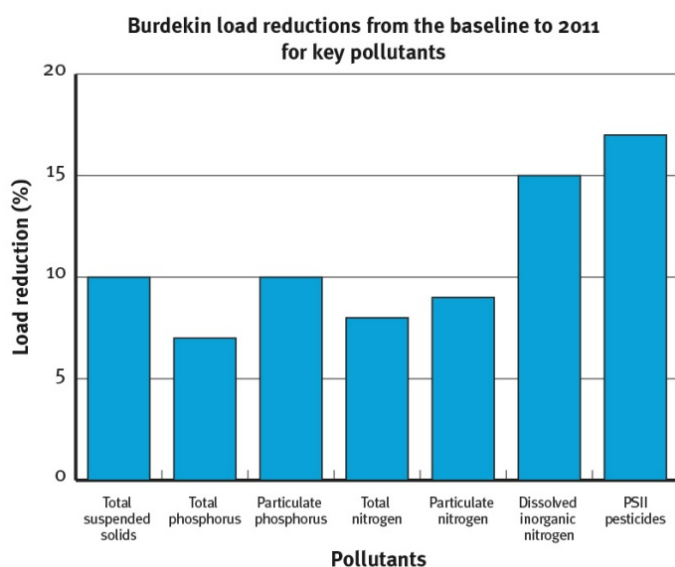
Sediment



10%
Very good

Target: 20 per cent by 2020.

The estimated annual average suspended sediment load leaving catchments reduced by 10 per cent (257,000 tonnes).



Land management changes in the horticulture industry have not been modelled.

Mackay Whitsunday

Nitrogen



13%
Good

Target: 50 per cent by 2013.

The estimated annual average total nitrogen load leaving catchments reduced by 13 per cent (228 tonnes). Agricultural fertiliser use is a key source of dissolved inorganic nitrogen and phosphorus. The estimated annual average dissolved inorganic nitrogen load leaving catchments reduced by 16 per cent (101 tonnes).

Phosphorus



12%
Moderate

Target: 50 per cent by 2013.

The estimated annual average total phosphorus load leaving catchments reduced by 12 per cent (37 tonnes).

Pesticides



31%
Very good

Target: 50 per cent by 2013.

The estimated annual average pesticide load leaving catchments reduced by 31 per cent (763 kilograms).

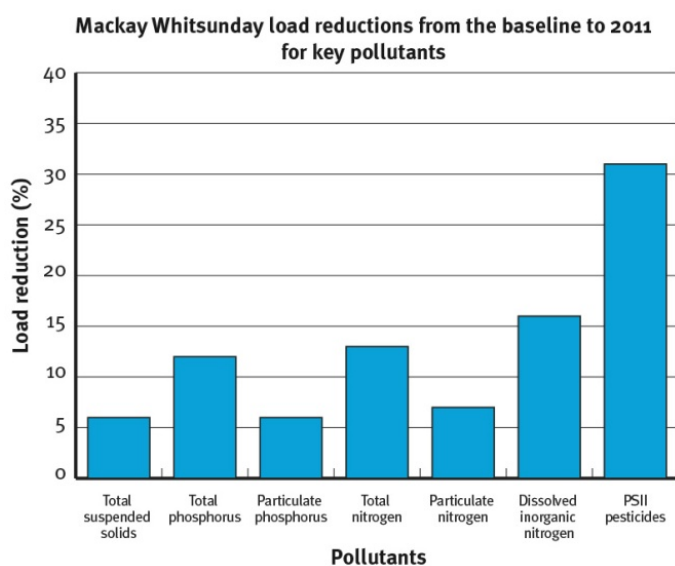
Sediment



6%
Very good

Target: 20 per cent by 2020.

The estimated annual average suspended sediment load leaving catchments reduced by six per cent (21,000 tonnes).



Land management changes in the horticulture industry have not been modelled.

Fitzroy

Nitrogen



2%

Poor

Target: 50 per cent by 2013.

The estimated annual average total nitrogen load leaving catchments reduced by two per cent (20 tonnes).

Phosphorus



5%

Moderate

Target: 50 per cent by 2013.

The estimated annual average total phosphorus load leaving catchments reduced by five per cent (32 tonnes).

Pesticides



4%

Moderate

Target: 50 per cent by 2013.

The estimated annual average pesticide load leaving catchments reduced by four per cent (26 kilograms). This does not include pesticide reductions from improved grazing practices.

Sediment

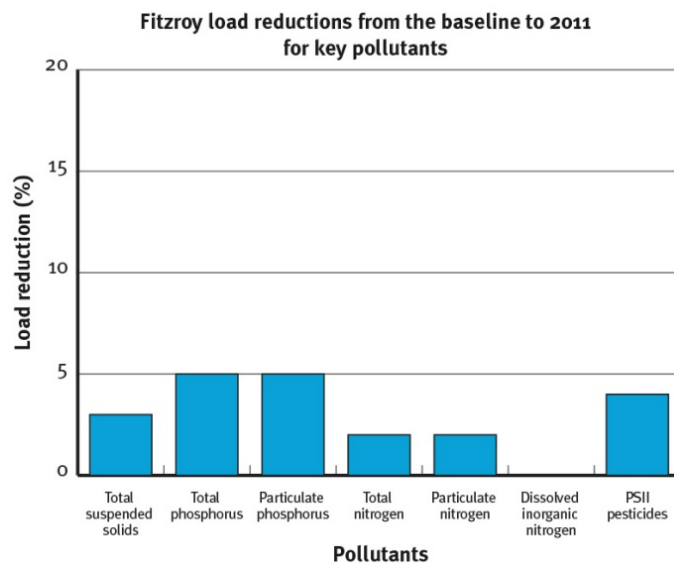


3%

Good

Target: 20 per cent by 2020.

The estimated annual average suspended sediment load leaving catchments reduced by three per cent (38,000 tonnes).



Land management changes in the horticulture and grains industries have not been modelled.

Burnett Mary

Nitrogen



8%
Moderate

Target: 50 per cent by 2013.

The estimated annual average total nitrogen load leaving catchments reduced by eight per cent (127 tonnes). Agricultural fertiliser use is a key source of dissolved inorganic nitrogen and phosphorus. The estimated annual average dissolved inorganic nitrogen load leaving catchments reduced by 23 per cent (100 tonnes).

Phosphorus



5%
Moderate

Target: 50 per cent by 2013.

The estimated annual average total phosphorus load leaving catchments reduced by five per cent (13 tonnes).

Pesticides



17%
Good

Target: 50 per cent by 2013.

The estimated annual average pesticide load leaving catchments reduced by 17 per cent (267 kilograms).

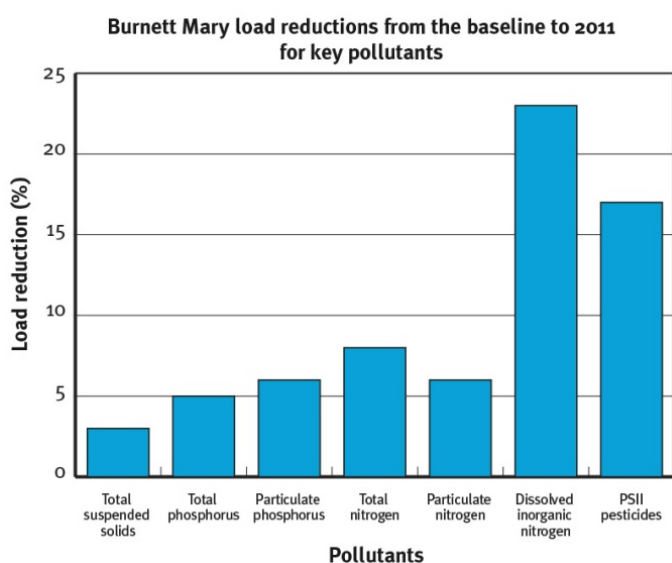
Sediment



3%
Good

Target: 20 per cent by 2020.

The estimated annual average suspended sediment load leaving catchments reduced by three per cent (10,000 tonnes).



Land management changes in the horticulture industry have not been modelled.

