



Scoring system

Great Barrier Reef

Report Card 2014



Australian Government



Queensland Government

**Great Barrier Reef
Report Card 2014
Reef Water Quality Protection Plan
Scoring system**

A standardised scoring system was developed for each of the key indicators in the report card. The scoring system is used to assess and communicate the progress towards the goal and targets. The Reef Plan targets are considered ambitious. Therefore, progress that is equal to or exceeds the target is considered very good.

Management practice system adoption – sugarcane, horticulture, grains cropping and grazing

Target by 2018: *90 per cent of sugarcane, horticulture, cropping and grazing lands are managed using best management practice systems (soil, nutrient and pesticides) in priority areas.*

Status/progress	Criteria for June 2014	Colour
Very poor progress towards target	0-22% of land managed using best management practice systems	Red
Poor progress towards target	23-45% of land managed using best management practice systems	Orange
Moderate progress towards target	46-67% of land managed using best management practice systems	Yellow
Good progress towards target	68-89% of land managed using best management practice systems	Light green
Very good progress towards target	90-100% of land managed using best management practice systems	Dark green

Ground cover

Target by 2018: *Minimum 70 per cent late dry season ground cover on grazing lands.*

Status/progress	Criteria for June 2014	Colour
Very poor ground cover – Well below the target	Less than 30% average ground cover	Red
Poor ground cover - Below the target	Between 30-39% average ground cover	Orange
Moderate ground cover – Just below the target	Between 40-49% average ground cover	Yellow
Good ground cover – Above the target	Between 50-69% average ground cover	Light green
Very good ground cover – Well above the target	Greater than 70% average ground cover	Dark green

Riparian extent

Target by 2018: *The extent of riparian vegetation is increased.*

Status/progress	Criteria for June 2014	Colour
Very poor progress towards target – Very high loss of riparian vegetation	Greater than 1.00% decrease	Red
Poor progress towards target – High loss of vegetation	0.51-1.00% decrease	Orange
Moderate progress towards target – Moderate loss of riparian vegetation	0.11-0.50% decrease	Yellow
Good progress towards target - No change or small loss of riparian vegetation	0-0.10 decrease	Light green
Very good progress towards target – Increase in riparian vegetation	0 or increase	Dark green

Wetland extent

Target by 2018: **There is no net loss of the extent, and an improvement in the ecological processes and environmental values, of natural wetlands.**

Note: A separate case study outlines the new wetland monitoring pilot project to report on the wetland environmental values and processes. The below scoring relates to the extent component of the target.

Status/progress	Criteria for June 2014	Colour
Very poor progress towards target – Very high loss of wetlands	Greater than 3.00% loss	Red
Poor progress towards target – High loss of wetlands	0.51-3.00% loss of wetlands	Orange
Moderate progress towards target – Loss of wetlands	0.11-0.50% loss of wetlands	Yellow
Good progress towards target – A small loss of wetlands	≤0.10% loss of wetlands	Light green
Very good progress towards target – Increase in wetlands	No net loss (0%) of wetlands	Dark green

Catchment pollutant loads – sediment, particulate nitrogen, particulate phosphorus

Target by 2018: **At least a 20 per cent reduction in anthropogenic end-of-catchments loads of sediment and particulate nutrients in priority areas.**

Status/progress	Criteria for June 2014	Colour
Very poor progress towards target – 'Increase in the catchment load'	Less than 7% reduction in load	Red
Poor progress towards target – 'No or small increase in the catchment load'	7 to <9% reduction in load	Orange
Moderate progress towards target – 'A small reduction in catchment load'	9 to <11% reduction in load	Yellow
Good progress towards target – 'A significant reduction in catchment load'	11 to <12% reduction in load	Light green
Very good progress towards target – 'A high reduction in catchment load'	12% or greater reduction in load	Dark green

Catchment pollutant loads – dissolved inorganic nitrogen

Target by 2018: **At least a 50 per cent reduction in anthropogenic end-of-catchment dissolved inorganic nitrogen loads in priority areas.**

Status/progress	Criteria for June 2014	Colour
Very poor progress towards target – 'Increase in the catchment load'	Less than 15% reduction in load	Red
Poor progress towards target – 'No or small increase in the catchment load'	15 to <20% reduction in load	Orange
Moderate progress towards target – 'A small reduction in catchment load'	20 to <25% reduction in load	Yellow
Good progress towards target – 'A significant reduction in catchment load'	25 to <30% reduction in load	Light green
Very good progress towards target – 'A high reduction in catchment load'	30% or greater reduction in load	Dark green

Catchment pollutant loads – pesticides (toxic equivalents)

Target by 2018: *At least a 60 per cent reduction in end-of-catchment pesticide loads in priority areas.*

Status/progress	Criteria for June 2014	Colour
Very poor progress towards target – 'Increase in the catchment load'	Less than 18% reduction in load	Red
Poor progress towards target – 'No or small increase in the catchment load'	18 to <24% reduction in load	Orange
Moderate progress towards target – 'A small reduction in catchment load'	24 to <30% reduction in load	Yellow
Good progress towards target – 'A significant reduction in catchment load'	30 to <36% reduction in load	Light green
Very good progress towards target – 'A high reduction in catchment load'	36% or greater reduction in load	Dark green

Marine

Standardised scale (1-100)

Status/progress	Marine indicators				Colour
	Corals	Water quality	Seagrass	Overall score	
Very poor condition	1-20	1-20	1-20	1-20	Red
Poor condition	21-40	21-40	21-40	21-40	Orange
Moderate condition	41-60	41-60	41-60	41-60	Yellow
Good condition	61-80	61-80	61-80	61-80	Light green
Very good condition	81-100	81-100	81-100	81-100	Dark green

Qualitative confidence rankings for key indicators used in Report Card 2014

A multi-criteria analysis approach was used to qualitatively score the confidence in each key indicator used in the report card. The approach combines the use of expert opinion and direct measures of error for program components where available. It is intended to develop quantitative uncertainty analysis across the entire program over time.

The determination of confidence for each key indicator used in the report card was assessed using five standard criteria:

1. Maturity of methodology.
2. Directness of measurement.
3. Spatial coverage/completeness.
4. Strength of relationship between the methodology, indicator reported and measured data.
5. Measured error.

Each criterion was scored using a defined set of scoring attributes (outlined in Table 1 below). The attributes are ranked from those that contribute weakly to the criteria (score of one) to those that have a strong influence (score of three).

All of the criteria were weighted equally, except for maturity of methodology which contributed half a weighting so not to outweigh the importance of the other criteria.

The total score is calculated and assessed against the one to five bar qualitative confidence ranking as follows:

Overall scoring:

0 to <5 = one bar

5 to <7.5 = two bars

7.5 to <10 = three bars

10 to <12.5 = four bars

≥12.5 = five bars

Presented as:

Confidence



Table 1: Confidence ranking criteria and scoring attributes:

CRITERIA					
	Maturity of methodology (weighting 0.5)	Directness of measurement	Spatial/ completeness	Strength of relationship between methodology, indicator reported and measured data	Measured error
SCORING ATTRIBUTES	Score = 1 New or experimental methodology	Score = 1 Remote sensed data with no or limited ground truthing or Modelling with no ground truthing or Survey with no ground truthing	Score = 1 1:1,000,000 or Less than 10% of population survey data	Score = 1 Measurement of data that have conceptual relationship to reported indicator	Score = 1 Greater than 25% error or error not measured or error not able to be quantified
	Score = 2 Peer reviewed method	Score = 2 Remote sensed data with regular ground truthing (not comprehensive) or Modelling with documented validation (not comprehensive) or Survey with ground-truthing (not comprehensive)	Score = 2 1:100,000 or 10-30% of population survey data	Score = 2 Measurement of data that have a quantifiable relationship to reported indicators	Score = 2 Less than 25% error or some components do not have error quantified
	Score = 3 Established methodology in published paper	Score = 3 Remote sensed data with comprehensive validation program supporting (statistical error measured) or Modelling with comprehensive validation and supporting documentation or Survey with extensive on ground validation or directly measured data	Score = 3 1:10,000 or 30-50% of population	Score = 3 Direct measurement of reported indicator with error	Score = 3 10% error and all components have errors quantified