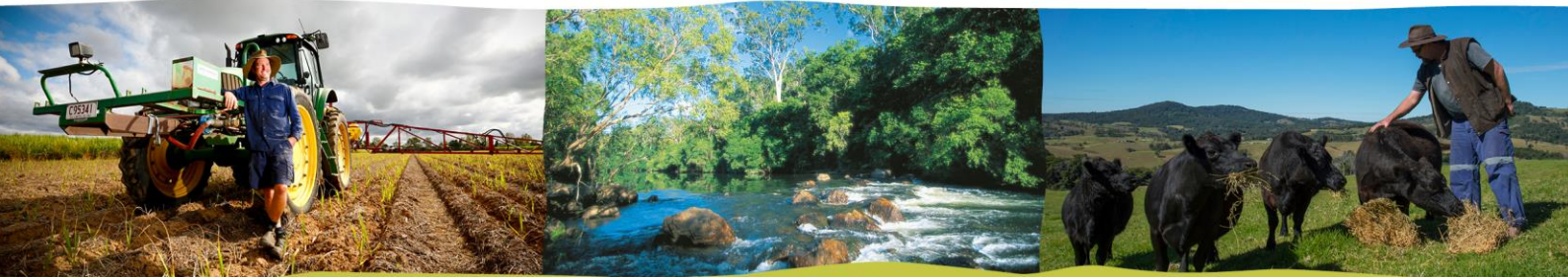


# Scoring system



## Great Barrier Reef Report Card 2015



Australian Government



Queensland Government

## Scoring system

The scoring system is used to assess and communicate progress towards the Reef Water Quality Protection Plan goal and targets. This year's Great Barrier Reef Report Card uses a five-point scoring system for each key indicator ('A' - Very good, 'B' - Good, 'C' - Moderate, 'D' - Poor, 'E' - Very poor) to assess progress towards the management practice and catchment targets as well as current marine condition.

The 'A', 'B', 'C', 'D', 'E' grades have been introduced to be more consistent with the regional report cards in Queensland and to make it easier to track progress towards the targets. The targets are considered ambitious. Therefore, progress that is equal to or exceeds the target is considered 'A' - Very Good (dark green). Please see below for full details.

### 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.

Adoption progress categories, grade and colour code	
0-22 %	<b>E - Red</b>
23-45 %	<b>D - Orange</b>
46-67 %	<b>C - Yellow</b>
68-89 %	<b>B – Light Green</b>
90-100 %	<b>A – Dark Green</b>

### Ground cover

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

Status/progress	Criteria for June 2015	Grade/Colour
Very poor groundcover – Well below the target	Less than 30% groundcover	<b>E - Red</b>
Poor groundcover - Below the target	Between 30-39% average groundcover	<b>D - Orange</b>
Moderate groundcover – Just below the target	Between 40-49% average groundcover	<b>C - Yellow</b>
Good groundcover – Above the target	Between 50-69% average groundcover	<b>B - Light green</b>
Very good groundcover – Well above the target	Greater than 70% average groundcover	<b>A- Dark green</b>

### 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 2015	Grade/Colour
Very poor progress towards target – “Increase in the catchment load”	Less than 9% reduction in load	<b>E - Red</b>
Poor progress towards target – “No or small increase in the catchment load”	9 to <11% reduction in load	<b>D - Orange</b>
Moderate progress towards target – “A small reduction in catchment load”	11 to <13% reduction in load	<b>C - Yellow</b>
Good progress towards target – “A significant reduction in catchment load”	13 to <14% reduction in load	<b>B - Light green</b>
Very good progress towards target – “A high reduction in catchment load”	14% or greater reduction in load	<b>A - Dark green</b>

### 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 2015	Grade/Colour
Very poor progress towards target – “Increase in the catchment load”	Less than 20% reduction in load	<b>E - Red</b>
Poor progress towards target – “No or small increase in the catchment load”	20 to <25% reduction in load	<b>D - Orange</b>
Moderate progress towards target – “A small reduction in catchment load”	25 to <30% reduction in load	<b>C - Yellow</b>
Good progress towards target – “A significant reduction in catchment load”	30 to <35% reduction in load	<b>B - Light green</b>
Very good progress towards target – “A high reduction in catchment load”	35% or greater reduction in load	<b>A - Dark green</b>

### 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 2015	Grade/Colour
Very poor progress towards target – “Increase in the catchment load”	Less than 24% reduction in load	<b>E - Red</b>
Poor progress towards target – “No or small increase in the catchment load”	24 to <30% reduction in load	<b>D - Orange</b>
Moderate progress towards target – “A small reduction in catchment load”	30 to <36% reduction in load	<b>C - Yellow</b>
Good progress towards target – “A significant reduction in catchment load”	36 to <42% reduction in load	<b>B - Light green</b>
Very good progress towards target – “A high reduction in catchment load”	42% or greater reduction in load	<b>A - Dark green</b>

### Marine

Standardised scale (1-100)

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

## Qualitative confidence rankings for key indicators used in Report Card 2015

A multi-criteria analysis approach was used to qualitatively score the confidence for 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.

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

1. Maturity of methodology (the score is weighted half for this criteria so not to outweigh the importance of the other criteria)
2. Validation
3. Representativeness
4. Directness
5. Measured error

### Scoring

Each criterion was scored using as 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).

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

### Overall scoring:

2015 Confidence Score Categories	Ranking
$\leq 6$ = one bar ranking	One bar
6.5 to 8 = two bars ranking	Two bars
8.5 to 9.5 = three bars ranking	Three bars
10 to 11.5 = four bars ranking	Four bars
$\geq 12$ = five bars ranking	Five bars

Presented as:

Confidence



Low -> high

**Scoring matrix for each criteria:**

<b>Maturity of methodology</b> (weighting 0.5)	<b>Validation</b>	<b>Representativeness</b>	<b>Directness</b>	<b>Measured error</b>
<b>Score = 1</b> <b>New</b> or experimental methodology	<b>Score = 1</b> <b>Limited</b>  Remote sensed data with no or limited ground truthing or Modelling with no ground truthing or Survey with no ground truthing	<b>Score = 1</b> <b>Low</b> 1:1,000,000 or Less than 10% of population survey data	<b>Score = 1</b> <b>Conceptual</b> Measurement of data that have conceptual relationship to reported indicator	<b>Score = 1</b> Greater than 25% error or limited to no measurement of error or error not able to be quantified
<b>Score = 2</b> <b>Developed</b> Peer reviewed method	<b>Score = 2</b> <b>Not comprehensive</b> Remote sensed data with regular ground truthing (not comprehensive) or Modelling with documented validation (not comprehensive) or Survey with ground truthing (not comprehensive)	<b>Score = 2</b> <b>Moderate</b> 1:100,000 or 10%-30% of population survey data	<b>Score = 2</b> <b>Indirect</b> Measurement of data that have a quantifiable relationship to reported indicators	<b>Score = 2</b> Less than 25% error or some components do not have error quantified
<b>Score = 3</b> <b>Established</b> methodology in published paper	<b>Score = 3</b> <b>Comprehensive</b> 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	<b>Score = 3</b> <b>High</b> 1:10,000 or  30-50% of population	<b>Score = 3</b> <b>Direct</b> Direct measurement of reported indicator with error	<b>Score = 3</b> 10% error and all components have errors quantified