



Reef Credit Guide

Version 1.0

Current as at: March 2019

Contact

Reef Credit Secretariat www.reefcredit.org

Acknowledgements

In 2017, natural resource management not-for-profits, Terrain NRM and NQ Dry Tropics, and environmental markets investor, GreenCollar, established a partnership to guide the development of the Reef Credit Scheme. Supporting this partnership, is an Interim Steering Committee comprising the Chief Executive Officers from each of the three organisations.

Interim Steering Committee Members

- Carole Sweatman – Chief Executive Officer, Terrain NRM
- Scott Crawford – Chief Executive Officer, NQ Dry Tropics
- James Schultz -Chief Executive Officer, GreenCollar

The Interim Steering Committee is supported in its work by a Reef Credit Secretariat (Executive Coordinator - Christine Michael). The Reef Credit Secretariat is currently hosted by NQ NRM Alliance Ltd (t/a Corporate Nature).

The role of the Interim Steering Committee will cease once the Reef Credit Scheme has transitioned from Beta phase to fully operational. Governance of the Reef Credit Scheme will then transfer to an independent not-for-profit company established in Queensland. The company will be governed by a skills based Board of Directors, with the day-to-day administration of the Reef Credit Standard delegated to the Reef Credit Secretariat. The Members of the not-for-profit company will be organisations and agencies that endorse the principles and objectives of the Reef Credit Scheme, Guide and Standard.

The Board and Reef Credit Secretariat will be supported on technical aspects of the Reef Credit Standard and Methodologies by a Technical Advisory Committee.

The Reef Credit Scheme encompasses all elements to deliver water quality improvements through ecosystem service payments, primarily to farmers, in the Great Barrier Reef catchments. Components of the Reef Credit Scheme are:

- Reef Credit Guide
- Reef Credit Methodologies
- Reef Credit Registry
- Reef Credit Standard
- Reef Credit Projects
- Reef Credit Governance

The Queensland Government launched the Reef Credit Scheme in October 2017, as part of two reef water quality projects, the Wet Tropics and Burdekin Major Integrated Projects, and aims to operate in all catchments of the Great Barrier Reef. The Major Integrated Projects, funded by the Queensland Government, and designed by the local community, support the Reef Credit Scheme by providing funding for its establishment and also piloting Reef Credit Projects with local farmers. This funding enabled the pilot Projects to commence in 2017.

The Reef Credit Scheme (including the Standard and Guide) was developed by the Interim Steering Committee. Advice and assistance were provided by the environmental markets and standard development consultants, Winrock International, via the working paper *Reef Credit Scheme Design Options*. A review of existing standards was conducted to ensure consistency with current good practice. The Interim Steering Committee also engaged with a number of operating water quality market programs, participants and founders, and standards organisations. The Interim Steering Committee wishes to gratefully acknowledge the contribution of existing national and international standards to the development of the Reef Credit Guide and Standard.

Citation - This document may be cited as the Reef Credit Guide Version 1.0 March 2019.

Table of Contents

Purpose of the Reef Credit Guide	Error! Bookmark not defined.
Rationale for the Reef Credit Scheme	Error! Bookmark not defined.
The Great Barrier Reef	3
Impact of Catchment Run-off on the Great Barrier Reef	3
A Market Solution for Protecting the Reef	3
Benefits of the Reef Credit Scheme	4
Objectives and Scheme Components	Error! Bookmark not defined.
Governance	Error! Bookmark not defined.
Scope and Application	Error! Bookmark not defined.
Reef Credit Base Unit and Conversion Factors	7
Methodologies	7
Other Forms of Environmental Credit	7
Voluntary and Compliance Markets	7
Reef Credit Documentation	Error! Bookmark not defined.
Reef Credit Registry	Error! Bookmark not defined.
Version Development and Interpretation	Error! Bookmark not defined.
Reef Credit Principles	Error! Bookmark not defined.
Reef Credit Scheme Participants	Error! Bookmark not defined.
Overview of the Reef Credit Process	Error! Bookmark not defined.
Detailed Definitions and Process	13
References	Error! Bookmark not defined.

Purpose of the Reef Credit Guide

The Reef Credit Guide provides the rationale and principles underlying the Reef Credit Scheme and is an aid to interpreting the Reef Credit Standard.

Rationale for the Reef Credit Scheme

The Great Barrier Reef

The Great Barrier Reef is the world's largest coral reef system, covering an area of 344,000 square kilometres, comprising approximately 3000 reefs, 900 islands and extending 2300 km along the Queensland coast of Australia.

The Reef, cared for by Traditional owners for thousands of years, was listed on the World Heritage Register in 1981 on the basis of its Outstanding Universal Value, particularly its "exceptional natural beauty and aesthetic importance", and as an outstanding example "representing significant ongoing ecological and biological processes". The contribution of the Reef to the Queensland and Australian economy is estimated to be close to \$6 billion a year, generating over 69,000 jobs across the tourism, recreation, commercial fishing, scientific research and management industries.

The agricultural land use in the catchments adjacent to the Great Barrier Reef lagoon, employs over 35,000 people and contributes approximately \$3.7 billion annually in gross value of production. (*Great Barrier Reef Water Science Taskforce Report*)

Impact of Catchment Run-off on the Great Barrier Reef

In 2017, the Reef Scientific Consensus Statement reported that key Great Barrier Reef ecosystems continue to be in poor condition. This is largely due to the collective impact of land based run-off associated with past and ongoing catchment and coastal developments, extreme weather events and climate change impacts such as coral bleaching.

Improving water quality entering the Great Barrier Reef Catchments is one of the most manageable actions to reduce the threats facing the Great Barrier Reef. To address water quality, the Queensland and Federal governments' Reef 2050 Long Term Sustainability Plan and the Reef 2050 Water Quality Improvement Plan (2018) set water quality targets. The targets are to reduce dissolved inorganic nitrogen loads by 60%, fine sediment loads by 25%, particulate nutrients by 20% and reducing pesticide to protect at least 99% of aquatic species at the end of the catchment. The 2017 Reef Scientific Consensus statement recognised that current initiatives cannot meet the water quality targets and that exploration of management alternatives and increased support and resources will be required.

A Market Solution for Protecting the Reef

A key conclusion in the 2016 Queensland Water Quality Science Taskforce report was the need to consider incentives and market mechanisms "to complement and integrate with regulation extension and education". Such market-based approaches have been shown to work effectively around the world in the provision of environmental services such as the sequestration of carbon, the reduction of sulphur oxides and the creation of water quality credits.

The Reef Credit Scheme adopts a similar approach in the Great Barrier Reef catchments, allowing landowners to generate and sell Reef Credits that result from activities that reduce Pollutants. The market for Reef Credits will work alongside existing environmental markets such as those for carbon and biodiversity. Reef Credits may be sold to a range of buyers such as government, corporate, industrial or philanthropic entities.

Benefits of the Reef Credit Scheme

1. Clear and robust rules to ensure water quality improvements credited are real, additional and permanent.
2. Farmers and land managers earn diversified and regular income over 10- 25 year time frames.
3. Research and knowledge linked to on-ground practice through peer reviewed methodologies designed to suit local conditions.
4. Attracts investment from government, corporate and philanthropic sources.
5. Investors buy verified water quality outcomes when they are delivered and audited.
6. A single administrative platform with independent, transparent and accountable governance oversight to achieve water quality improvement.
7. Delivers consistent measurement and monitoring tools to track progress toward water quality targets across the entire Reef.
8. Funds projects designed to suit local conditions, agribusiness requirements and land manager's plans.
9. Complements other key services such as extension, agribusiness, catchment management and other ecosystem services.

Objectives and Scheme Components

The objectives of the Reef Credit Scheme are to:

1. Improve water quality entering the Great Barrier Reef;
2. contribute to the delivery of water quality improvement targets set under the Reef 2050 Water Quality Improvement Plan (2018); and
3. create a market mechanism to incentivise projects that achieve water quality improvements.

The Reef Credit Scheme aims to provide a practical and credible scheme for crediting reductions of Pollutants entering the Great Barrier Reef. The Reef Credit Scheme encompasses all elements to deliver water quality improvements through ecosystem service payments, primarily to farmers and land managers, in the Great Barrier Reef catchments. Components of the Reef Credit Scheme are:

Reef Credit Guide	Overview of the Reef Credit Scheme.
Reef Credit Standard	Rules and requirements for developing Reef Credit Projects and Methodologies, the Validation, registration, Monitoring, Verification, crediting and issuance process and the governance arrangements.
Reef Credit Registry	Ledger that tracks Reef Credit transactions and ownership.
Reef Credit Methodology	Approved ways of undertaking Reef Credit Projects that provide verifiable Pollutant reductions.
Reef Credit Projects	Activities that conform to an approved Reef Credit Methodology.
Reef Credit Governance	Independent oversight of the Standard, Registry, Methodologies and Reef Credit Projects.
Reef Credit Scheme Communication	Building awareness and opportunity to participate in Reef Credits.

The Reef Credit Scheme:

1. Creates a fungible Pollutant reduction credit called a Reef Credit;
2. Provides a transparent and secure Registry system that offers protection against Double Counting and provides visibility for the public;
3. Establishes clear rules and procedures to allow development of Pollutant reduction Reef Credit Projects;
4. Provides transparent oversight through the independent Reef Credit governance body to ensure that landholders, participants, investors, community and the market recognise the Reef Credit as being real, additional and permanent;
5. Links research and knowledge with practice through a creditable, transparent and verifiable market mechanism;
6. Provides a testable and practical framework for a water quality market within the Great Barrier Reef; and
7. Provides an economically efficient, verifiable pathway and a scalable mechanism for delivering landscape level change to achieving the Reef 2050 Water Quality Improvement Plan (2018) water quality targets.

Governance

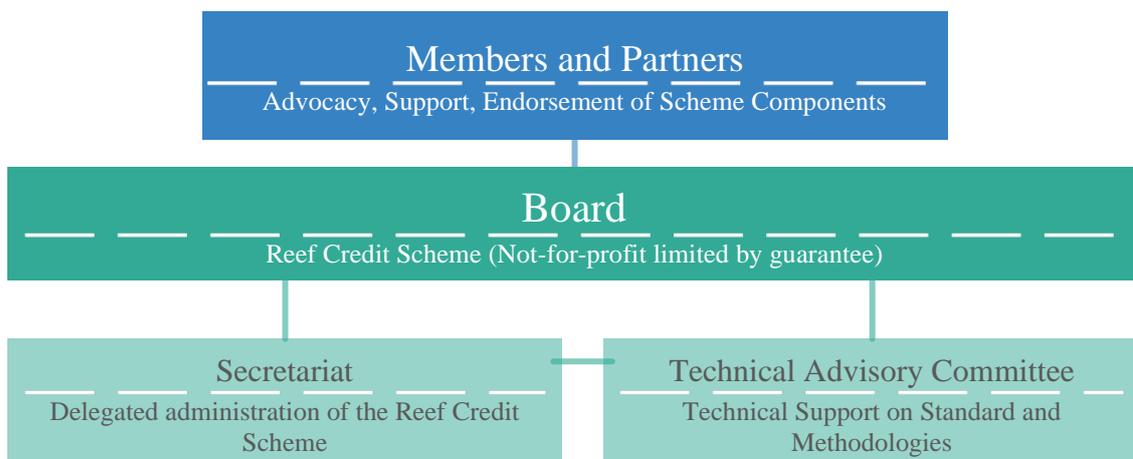
An independent not-for-profit company, established in Queensland under the *Corporations Act 2001* (Cth) as a company limited by guarantee, will administer the Reef Credit Scheme. The company will be governed by a skills based Board of Directors, with the day-to-day administration of the Reef Credit Standard delegated to the Reef Credit Secretariat (staff).

The role of the Reef Credit Board is to provide strategic, risk and compliance, and financial oversight to the Reef Credit Scheme, manage the development and ongoing maintenance of the Reef Credit Standard, and provide supervision of the Secretariat.

The Secretariat, overseen by the Board, carries out operational activities in relation to the administration of the main functions of the Standard. The Reef Credit Secretariat manages the Validation, registration, Verification, and issuance processes under the Reef Credit Standard. The Reef Credit Secretariat's role and responsibility includes overseeing verification bodies authorised under the Scheme and ensuring the integrity of the Registry system.

The Members and Partners of the not-for-profit company will be organisations and agencies that endorse the principles and objectives of the Reef Credit Scheme, Guide and Standard. Partnership is offered to organisations that are unable to become members due to legal or other constraints.

The Board and Reef Credit Secretariat will be supported on technical aspects of the Reef Credit Standard and Methodologies by a Technical Advisory Committee. The Technical Advisory Committee will be composed of specialists that provide independent expertise on the methodology approval and modification process, selection of peer reviewers, compliance matters and related issues.



Scope and Application

Reef Credit Base Unit and Conversion Factors

A Reef Credit represents a quantifiable amount of Pollutant prevented from entering the Great Barrier Reef catchment.

The relative value of Pollutant reduction is set using the reef wide pollution reduction targets described in the Reef 2050 Water Quality Improvement Plan (2018). These values will be periodically amended by the Reef Credit Secretariat to reflect changes to the water quality targets. The calculations used to convert different types of Pollutant reductions into Reef Credits are set out in the Reef Credit Standard Section 2.2 and Schedule 2.

Methodologies

Projects operating under the Reef Credit Scheme must use an approved Reef Credit Methodology to quantify Pollutant reductions. Methodologies may be developed for any practice change or ecosystem repair activities that are able to reduce or remove Pollutants entering the Great Barrier Reef. Reef Credit Methodologies must comply with the Reef Credit Standard requirements for methodology development and approval as set out in the Reef Credit Standard Section 4.

Other Forms of Environmental Credit

The scope of the Reef Credit Scheme does not include greenhouse gas emissions or biodiversity. It is, however, possible to undertake other ecosystem services projects (including carbon, biodiversity and renewable energy projects) over the same area, subject to the requirements set out in the Reef Credit Standard.

Voluntary and Compliance Markets

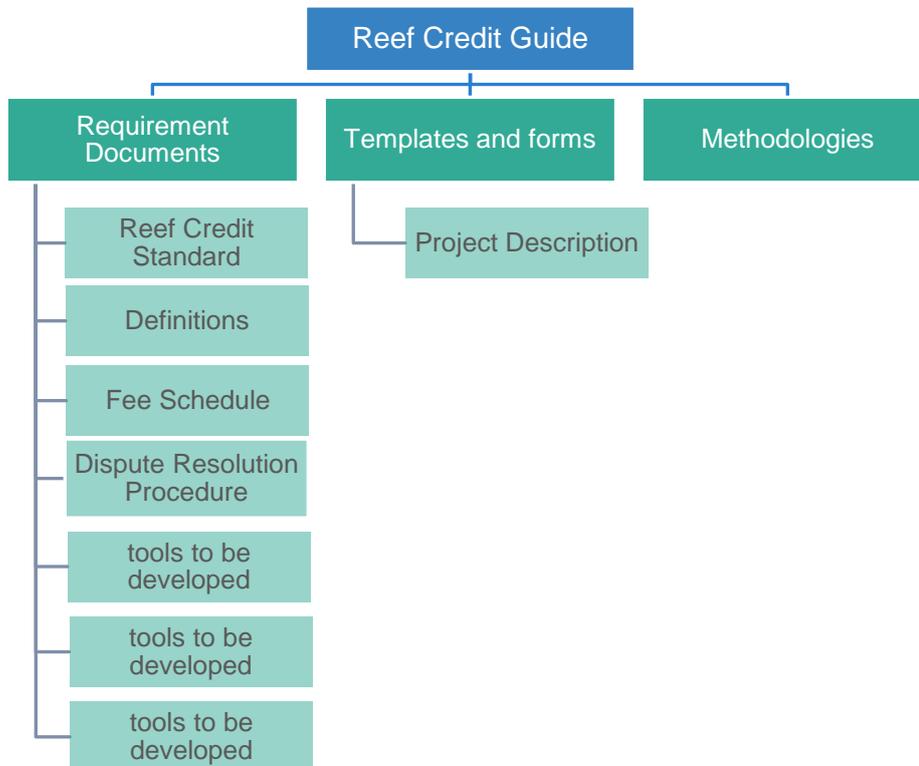
The Reef Credit Scheme can be used to develop, buy, and sell Reef Credits for voluntary purposes and, subject to any specific regulatory requirements, for compliance/offsets purposes.

In the voluntary market context, it provides a mechanism to consistently measure benefits generated by land management and conservation actions, providing increased accountability for those who want to invest in water quality improvements. In the compliance market context, it provides a mechanism for mitigation or trading under regulatory requirements.

Reef Credits have been designed as fungible units across pollutant types and any water quality improvement programs. The mechanism for this is provided in the relative water quality targets in the Reef 2050 Water Quality Improvement Plan (2018) as the basis for both voluntary and compliance markets.

Reef Credit Documentation

The rules and requirements for the Reef Credit Scheme are described in the Reef Credit documentation. Reef Credit Projects and Reef Credit Methodologies need to meet with all applicable rules and requirements described in these documents.



Reef Credit Guide - Reef Credit Guide is the overarching explanatory document that details the rationale for the Reef Credit Scheme, the core principles, the participants, and the process and framework to generate, register, and issue Reef Credits from a Reef Credit Project.

Requirement Documents - Reef Credit Standard sets out the rules and requirements for developing Reef Credit Projects and Reef Credit Methodologies, the Validation, registration, Monitoring, Verification, crediting and issuance process and the governance arrangements. The Reef Credit Standard includes Definitions for terms used in all Reef Credit documents.

Reef Credit Fee Schedule provides fees for submission of Reef Credit Projects, methodologies and issuance of Reef Credits.

Templates and Forms - Procedural documents forms and templates referred to in the Reef Credit Scheme Guide and Reef Credit Standard detail the processes, procedures and forms to give effect to the relevant rules and requirements. These will be developed once the Reef Credit Standard is finalised.

For example, the Reef Credit Project Description is the template document that must be used to submit a Reef Credit Project to the Reef Credit Secretariat.

Methodologies - Reef Credit Methodologies provide the specific eligibility requirements and accounting rules for different types of Reef Credit Projects. All Reef Credit projects must use an approved Reef Credit Methodology.

Reef Credit Registry

The Registry acts as a ledger to track credit ownership and transactions. The Registry ensures that Project documents have been submitted, it also issues and maintains accounts for Reef Credit account holders, and tracks and reports the transfer and retirement of Reef Credits. The Registry is managed by the Reef Credit Secretariat. See Reef Credit Standard for the definition of Registry.

Version Development and Implementation

This is version 1.0 of the Reef Credit Guide. This version applies to a twelve-month testing of the Reef Credit Guide and will be reviewed in December 2019 to make any necessary amendments. This review process will consider matters such as new or proposed methodologies, outcomes from testing procedures, forms and templates and validation/verification processes.

The Reef Credit Guide has been developed by the Interim Steering Committee.

This document will be further reviewed and updated by the Reef Credit Secretariat from time to time for relevance and effectiveness in meeting its objectives.

Definitions used in this document are set out in the Reef Credit Standard Definitions document.

Reef Credit Principles

All Reef Credit Projects must meet the requirements set out in this document and the Reef Credit Standard. Pollutant reductions verified under this Scheme and issued with Reef Credits must meet the following core principles:

Real

All Reef Credits must be the result of eligible project activities that yield quantifiable and verifiable Pollutant reductions or removals.

Measurable

All Reef Credit generated Pollutant reductions and removals must be quantifiable using a credible baseline established in Reef Credit Methodologies approved by the Secretariat.

Permanent

Where Reef Credit generated Pollutant reductions or removals are generated by Projects that carry the risk of Reversal, adequate safeguards must be in place to ensure that, should Reversal occur, a mechanism is in place that guarantees replacement or compensation.

Additional

All Reef Credit generated pollutant reductions and removals must be over and above:

- 1) a Business As Usual scenario;
- 2) legal requirements (e.g. regulatory standards threshold for compliance, or activities required by a conservation covenant); and
- 3) what is already funded to occur (i.e. satisfy the financial additionality test).

Independently audited

Reef Credits must be verified by an independent, accredited Verifier with the necessary expertise.

Unique

Each Reef Credit must be unique and only associated with a single Reef Credit Project.

Transparent

There must be sufficient and adequate public disclosure of information to ensure Reef Credits are trusted by generators, investors, partners, stakeholders, government and the general public.

Conservative

Accurate or conservative assumptions, values, and procedures must be used to ensure Reef Credit Pollutant reductions and removals are not over estimated. This includes a requirement that the Project Proponent assess, account for, and mitigate 'leakage', in accordance with the relevant approved Methodology.

Leakage is the displacement of activities that harm water quality from within the Project boundary to a location outside the Project boundary. Leakage occurs if improving water quality within Project Areas has a knock-on effect of reducing water quality elsewhere.

Leakage may be caused by shifting of the activities of people present in the Project Area. For example, if there is a risk that farming on adjacent land might be intensified to compensate for reduced output in the Project Area. Leakage can also occur due to market effects whereby Pollutant reductions are countered by pollution created by shifts in supply of and demand for the products and services affected by the Project.

Leakage results in a lower provision of water quality improvement services being attributable to the Project. Project Proponents must deduct leakage that reduces the Pollutant reduction and/or removal benefit of a Project in excess of any applicable threshold specified in the Methodology.

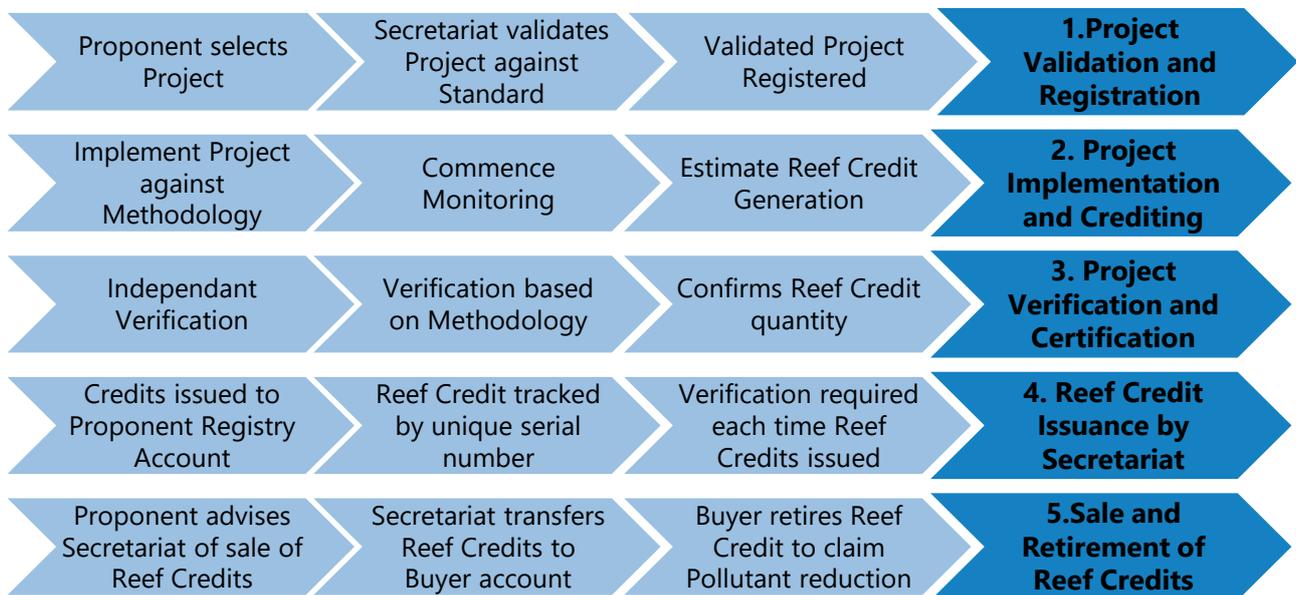
Reef Credit Scheme Participants

Participation in the Reef Credit Scheme is voluntary and based on satisfying the Reef Credit Standard and Methodologies. Participation is open to anyone that can meet these requirements. Details of the various participants in the Reef Credit Scheme are set out in the table below.

PARTICIPANT	ROLE
PROJECT PROPONENTS	<i>Project Proponents</i> are individuals or entities that create Reef Credits. A Project Proponent might be an individual landowner, land manager, or project developer. See Reef Credit Standard for definition of Project Proponent.
BUYERS	<i>Buyers</i> include any public or private entity that chooses or needs to support water quality improvement. Buyers may purchase Reef Credits to meet regulatory obligations, subject to any relevant regulatory agency requirements, or as a way to measure progress toward environmental goals.
TECHNICAL SERVICE PROVIDERS	<i>Technical Service Providers</i> provide support to landowners, Project Proponents, and Buyers. They use approved Methodologies and design Reef Credit Projects to produce the best water quality outcomes. Examples include extension service, researchers and Methodology Developers. <i>Methodology Developers</i> are bodies that write and develop methodologies that are subject to the Reef Credit Methodology approval process.
VERIFIERS	<i>Verifiers</i> are independent third parties or agencies who confirm that Reef Credits are calculated accurately and maintained to the appropriate standard throughout the life of the Reef Credit Project. Verifiers must be appropriately trained and accredited. See Reef Credit Standard for definition of Verifiers.
GOVERNANCE BODY AND SECRETARIAT	The Reef Credit Scheme is governed by a not-for-profit company limited by guarantee incorporated in Queensland, Australia. The company is governed by a Board of Directors, with the day-to-day administration of the Reef Credit Standard delegated to the Reef Credit Secretariat. The Reef Credit Secretariat manages Reef Credit Validation, registration, Verification, and Reef Credit issuance processes. See Reef Credit Standard for definition of Secretariat and Governance Body.

Overview of the Reef Credit Process

The following steps outline the process that a Project Proponent would follow to generate, register, and sell Reef Credits from a Reef Credit Project.



1. Site selection, validation and registration

Once a Project Proponent has identified a site on which to undertake a Reef Credit Project and selected an appropriate Reef Credit Methodology and are satisfied that they meet all necessary rules and criteria of the Reef Credit Standard they must apply to register a Project with the Reef Credit Secretariat.

The Reef Credit Secretariat will validate the Project against the Reef Credit Standard and the appropriate Methodology to ensure that the Project Proponent has complied with all relevant rules and criteria. If the Project is compliant the Secretariat will notify the Project Proponent and register the Project on the Registry. If the Project is not compliant the Reef Credit Secretariat will notify the Project Proponent that the Project has failed to meet Validation standards. Project Proponents may revise their Project Application and reapply if they feel they are able to subsequently satisfy meet all necessary rules and criteria of the Reef Credit Standard and Methodology. See Section 4 of the Reef Credit Standard.

2. Reef Project implementation and Reef Credit calculation

Once the Reef Credit Project has been registered, Project Proponents must begin to implement the Reef Credit Project activities and commence Monitoring of the Reef Credit Project.

Project Proponents must apply the relevant Reef Credit Methodology to estimate Reef Credit generation under the Baseline Scenario and the Project scenario, based on Project Design Documents. Reef Credits are calculated as the difference between the Baseline Scenario and Project scenario. See Section 3 of the Reef Credit Standard.

3. Reef Credit Verification and Certification

To provide assurance that Pollutant reductions are real, all projects must undergo independent Verification by professional Verifiers accredited by the Reef Credit Secretariat.

Verification processes may differ depending on the Methodology. This process confirms Project eligibility, baseline and Project Pollutant reduction calculations, Reef Credit quantity and that the

Project was implemented to meet the Reef Credit Standard. See section 3.7 of the Reef Credit Standard.

4. Reef Credit Issuance

Once a Reef Credit Project has been verified the Reef Credit Secretariat is able to issue Reef Credits to the Project Proponent.

The Project Proponent must set up a Registry account, to which Reef Credits are issued. Upon issuance, Reef Credits become visible to the public and are tracked with a unique serial number. See section 3.7 of the Reef Credit Standard.

Project Verification by independent and accredited Verifiers must be undertaken each time Project Proponents seek to have Reef Credits issued.

5. Sale and Retirement of Reef Credits

The sale or transfer of Reef Credits is a direct transaction between the Project Proponent and Buyer. The Reef Credit Secretariat receives a report of a sale from the Project Proponent after a transaction is made and approves transfer of Reef Credits from one Registry account to another. The Reef Credit Secretariat is not involved with any financial transaction between Buyers and Project Proponent. Once a Reef Credit has been purchased a buyer must retire the Reef Credit with the Reef Credit Secretariat in order to claim the relevant Pollutant reduction.

Reef Credits are also subject to 'vintaging'. The Vintage is a term that refers to the year of production of the Reef Credit, which means the date on which the Pollutant reduction or removal was verified. The price of a Reef Credit may vary depending on its Vintage. Reef Credits remain valid for three (3) years from the date of the Verification Report for which the Reef Credit was issued, after which the Reef Credit automatically expires. The purpose of vintaging is to ensure that water quality improvement claims are realised within a timeframe consistent with the Reef Credit Project intention and implementation.

Detailed Definitions and Process

Details on accreditation of Verifiers, Methodology Approval, Dispute Resolution, Leakage Assessments, Permanence, Safeguards, Crediting Periods and Credit Retirement are provided in the Reef Credit Standard.

The main components of the Reef Credit Standard include:

- Scope and application
- Project rules
 - General eligibility requirements
 - Project requirements
 - Validation
 - Credit calculation and project implementation
 - Project registration
 - Verification
 - Project certification and credit issuance
 - Ongoing verification, tracking and transfer of credits
- Methodology requirements
 - General
 - Applicability conditions

References

Great Barrier Reef Outlook Report (2014), Commonwealth Government 2014.

Great Barrier Reef Scientific Consensus Statement (2017), Queensland Government 2017.

Great Barrier Reef Water Science Taskforce Report (2016), Queensland Government 2016.

Reef 2050 Long-Term Sustainability Plan (2018), Commonwealth of Australia 2018.

Reef 2050 Water Quality Improvement Plan (2017-2022), Commonwealth of Australia 2017.